TEXTILE BULLETIN

Vol. 55 November 1, 1938 No. 5

INSTITUTE FOR
RESEARCH IN
SOCIAL SCIENCE

Oiling Looms Only or Floors as Well?

Look at the floors under your looms and you will see WHY you can save money by using

TRADE MARK REGISTERED
NON-FLUID OIL
IN U.S. PAT. OFFICE & FOREIGN COUNTRIES

The drip-less, waste-less lubricant stays in bearings until entirely consumed, outlasting oil 3 to 5 times and preventing oil stains.

NON-FLUID OIL is now being used by 7 out of 10 mills. You can prove its economy on your machines. Send for bulletins and testing samples!

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Cutler Spinning and Twisting Tape and Bands

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Cutler Spinning Tape

Durability	more than 40% greater than standard tape to date.
Power Input Saving	ranging from 10% to 24%.
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More Even Twist	than obtained from standard tape.
Increased Spindle Speed . .	from 145 on 7's to 320 on 90's.
No Bump	on spindle whorl.
Strength of Tape	guaranteed in ⅝″ minimum 240 lbs.—averaging today 260 lbs.
Cotton Used	100% best obtainable Sakelarides.
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A PROMINENT NEW HAMPSHIRE MILL HAS JUST RUN A 6 MONTHS TEST ON CUTLER TAPE—10,000 SPINDLES IN ONE ROOM—CHECKING TWICE A DAY ON HANK CLOCKS THE YARN INCREASE HAS RUN STEADILY 2.06%. CHECKING PER DOFF ON MAIN POWER LINE LEADING INTO THE ROOM THE POWER INPUT DECREASE HAS RUN STEADILY AT 11%.

May we be of service to you?

ROGER W. CUTLER

141 MILK STREET
BOSTON, MASS.

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BARBER MFG. CO.
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BYRD MILLER
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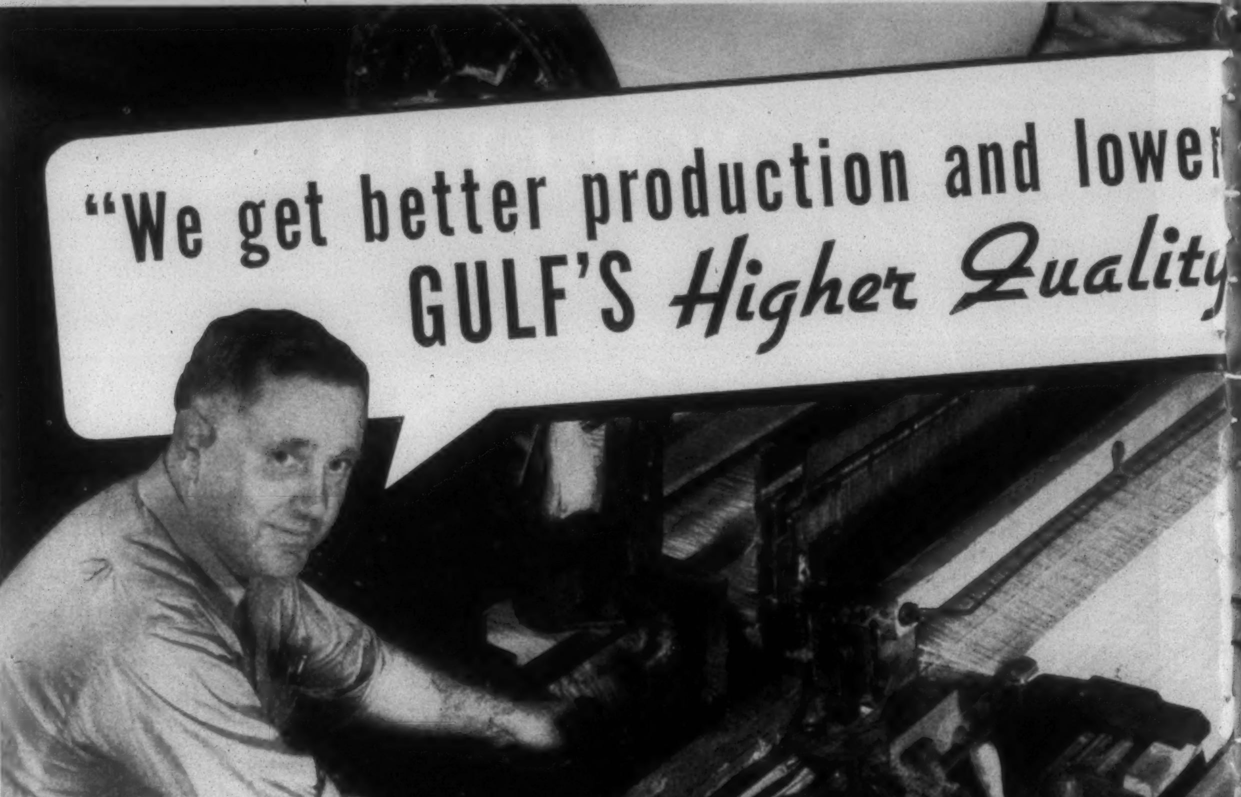
WHITIN MACHINE WORKS
WHITINSVILLE, MASSACHUSETTS, U. S. A.
CHARLOTTE, N. C. ATLANTA, GA.

"We get better production and lower
GULF'S *Higher Quality*



"We use Gulfcrest Oil for the lubrication of crankshaft bearings on these modern looms," says this mill superintendent, "and we feel that the fine production records we are making are due, in large measure, to efficient lubrication."

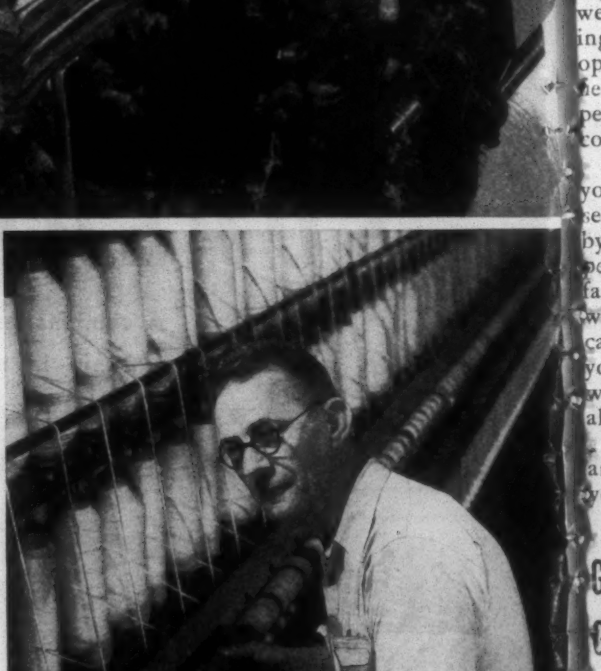
"In this spinning room we use only GULF'S highest quality lubricants"...

..SAYS SPINNING OVERSEER

"YEARS of experience have proved to us that the efficiency of our spinning frames has a direct relationship to the efficiency of spindle and bearing lubrication," says this spinning overseer. "We find that by using higher quality oils we get less oxidation and gumming, lower power costs and better production."

The remarkable stability of Gulf's higher quality oils results from the use of special processes in their manufacture — treatment which removes the undesirable hydrocarbons which cause oxidation and gum forming. These finer, purer oils may be used over longer periods of time without deterioration, assuring a strong protective film which minimizes wear and repair expense.

Gulf's wide distribution facilities make these quality lubricants available to every mill operator from Maine to Texas. Ask the Gulf engineer to recommend the right brands and grades for *your* equipment.



"We have standardized on Gulfgem Oil B for spindle lubrication, Gulfcrest Oil D for roll necks and stands and Gulf Precision Grease BB for ball bearing drives," says this spinning overseer, "and we have proved the value of these quality lubricants in our spinning room."

maintenance costs by using LUBRICANTS!"

SAYS THIS MILL SUPERINTENDENT

Cams and rollers of these looms are lubricated with Gulf Supreme Cup Grease No. 2 — ball bearings with Gulf Precision Grease BB.

"We keep these modern looms in trouble-free operation 24 hours a day"

"WE place great demands on our loom equipment," says this mill superintendent, "so we decided to insure efficient production by using Gulf's higher quality lubricants. The splendid operating results we have secured have fully justified that decision. Not only does our equipment perform better, but our lubrication has actually cost less than when we used lower priced oil."

When you use Gulf's higher quality lubricants you are getting the benefit of many years of research and experience with lubrication problems by Gulf's large staff of technical men. They have perfected oils and greases which can withstand far greater punishment than modern machines will give them. Thus, you are assured of lubricants which possess a margin of safety far beyond average requirements. The machines to which these quality lubricants are applied nearly always make better production records.

There is a *real quality story* behind Gulf oils and greases. Ask the Gulf engineer who calls at your plant to give you complete details.

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GULF REFINING COMPANY

GENERAL OFFICES: GULF BUILDING, PITTSBURGH, PA.

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Six Reasons

why GULFGEM OILS are the world's finest spindle oils

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1 **MINIMUM POWER CONSUMPTION.** As an oil oxidizes, viscosity and gum formation increase. More power is required to overcome the increased internal friction. The stability built in GULFGEM OILS by the "Alchlor" Process provides an oil with highest resistance to oxidation.

2 **TOUGH FILM INSURES MINIMUM WEAR.** Because of the advanced methods employed in the manufacture of GULFGEM OIL, it provides a tough film which insures efficient lubrication over a long period of time. Thus, spindle wear is reduced to a minimum.

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5 **MAXIMUM INTERVALS BETWEEN SPINDLE BASE CLEANING.** If an oil oxidizes and gums at a rapid rate, spindles must be cleaned and lubricated at frequent intervals. The stability of GULFGEM OIL greatly reduces the frequency of shut-downs for this purpose.

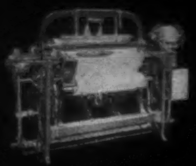
6 **LOWER PRODUCTION COST.** Less frequent need for oil changes, time saved by fewer shut-downs, lower maintenance expense and lower power consumption reflect substantial savings in total operating costs.

also a Complete Line of Fuel and Furnace Oils

Looms Have Changed in 50 Years

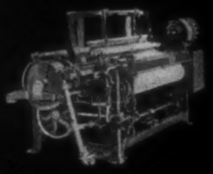
Common Loom of 1888
2 to 8 per Weaver

Out of the Picture



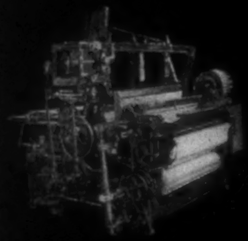
B Model Loom of 1898
12 to 16 per Weaver

It Has Disappeared



E Model Loom of 1918
16 to 40 per Weaver

Best Loom in the World
in Its Day
But Its Day is Passing



One of X Family of
High Speed Looms of 1938
With Battery Hands
40 to 100 Looms per Weaver
on X Model on Cottons
Up to 50 Looms per Weaver
on X K Model on Rayons

All Our New Business
is in
Looms of the X Family
They Will
Fix Weaving Costs in Future

Modern Business Can't Live in the Past

DRAPER CORPORATION

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WE'D LIKE TO TELL YOU ABOUT DU PONT'S NEW PROCESSES FOR

PEROXIDE BLEACHING

GO AHEAD! I'M ALWAYS INTERESTED IN

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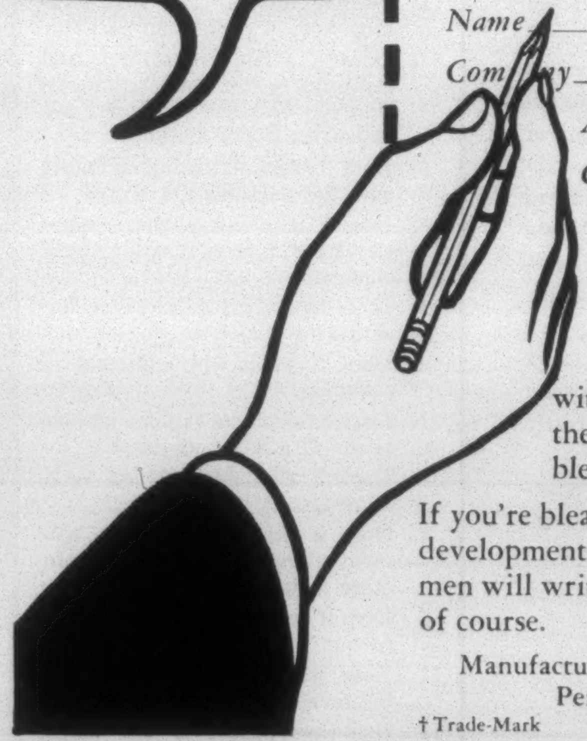

THESE processes are entirely new—developed within the last year or so. Outstanding textile mills in the country are using them to save money on Peroxide bleaching.

If you're bleaching textiles, it'll pay you to hear about these new developments. Just fill in the coupon and one of our technical men will write or phone you for an appointment. No obligation, of course.

Manufacturers of DFF† SOLOZONE*, ALBONE* and Sodium Perborate for Textile Bleaching and Processing.

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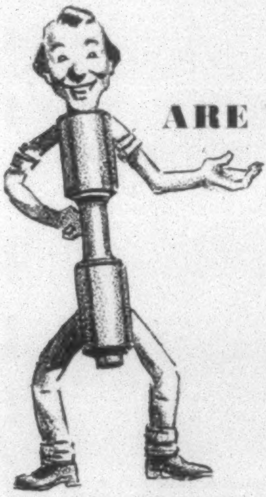

ARE YOU LOOKING AT THE FOREST OR THE TREES?

When considering the question of leather roll covering versus substitutes, take care that you don't fail to "see the forest because of the trees." Don't be so impressed by some one or two advantages of a substitute that you neglect to test it for all 12 requirements of a good roll covering.

For instance, does it require a standard diameter arbor or does it necessitate grinding down your arbors to a smaller diameter? If the latter is true, then consider not only the initial expense of grinding down your arbors, but also the much greater expense of buying new arbors in case you want to change back to leather (as a considerable number of mills already have). This last expense, among many others, often makes playing with substitutes a costly experiment.

There's nothing experimental about Gilleather. It uses standard diameter arbors and has consistently passed all other requirements of the 12 Point Test with flying colors for more than 100 years. Ask us and we'll tell you why.

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SHEEP and CALF SKIN
GILLEATHER
***for* TOP ROLLS**

THE 12 POINT TEST

1. Does it automatically stop spinning when it makes bad yarn?
2. Does it retain its cushion and resiliency in low temperatures, as over the week-end in winter, and as long as it will draft?
3. Does it resist flattening or fluting over the week-end?
4. Does it require a standard diameter arbor, thus eliminating costly changes?
5. Is it impervious to excessive humidity?
6. Does it produce a minimum of eyebrows?
7. Does it eliminate lap-ups as long as it will make good yarn?
8. Does it eliminate cockled yarn, other factors being correct?
9. Does it produce yarn of maximum strength for a given staple, other factors being correct?
10. Does it require a minimum of attention?
11. Does it function properly ALL the time until worn out?
12. Has time proved it any better than the 600 odd "improved" roller coverings that have come and gone?

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MEMBER AUDIT BUREAU OF CIRCULATIONS

TEXTILE BULLETIN

Vol. 55 November 1, 1938 No. 5

New Industries and Old

By Dr. Wm. P. Jacobs

Secretary, Cotton Manufacturers' Association of South Carolina

Dr. Jacobs, in a talk before the Carders and Spinners Section of the South Carolina Division of the Southern Textile Association, points out some of the faults of the present attitude of Government toward Industry in South Carolina (which might also apply to other States), and foresees the migration of the South's Textile Industry unless policies are changed. Excerpts from the talk follow:

GENTLEMEN, you are engaged in production and in the prosecution of your affairs and the solution of your problems with relation to your work, but I am going to slip up on you and try to make of you good-will salesmen, merchants so as to speak. You have a tremendous job to do in that particular direction. I am keenly interested particularly in the public relations problems facing this industry, and those problems are facing you more acutely than ever before, and they are facing you in particular because you can feel the effects and you can feel sometimes the public pulse and the pulse of those directly under you. To foster and encourage proper public relations is a big job for all of us, and I would like to encourage you to become salesmen in the public relations field. Therefore I want to talk to you about old industries as well as the new ones.

It was several hundred years ago that the textile industry, the one in which we are principally concerned, made its start in old England, following then the cottage weaving system, in which all of the cloth was made in the homes. At that time the cloth was made by a handful of cottage weavers. Well, along came old man Arkwright's new machine. This new invention, looked upon by the early cottage weavers as a huge monster that would ultimately destroy their jobs and reduce their wages, met with tremendous resistance. The first factory was stormed and actually burned to the ground, but it was inevitable that it should succeed, and in time its success not only did not decrease employment, but tremendously increased it as the cost of clothing was greatly reduced as a result of new methods; consumption tremendously increased; and the cotton mills that followed gave employment to millions instead of thousands at weekly wages that were unheard of and not even dreamed of in the early cottage weaving days.

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However, as the industry prospered in old England, many unfavorable conditions began to develop. Everybody seemed to want to get a finger into the pie. Taxes rose, freight rates increased, the cost of production from many angles stepped upward, restrictive legislation came into the field until finally a harrassed and discouraged industry looked elsewhere for its development. A new world was just then opening, and it was in New England, in the United States of America, that British capital found its greatest encouragement. The industry grew rapidly in New England until it faced the same identical adverse conditions which caused its downfall in old England; and a short-sighted New England people finally "killed the goose that laid the golden egg," tied the hands of industry with futile laws, raised the taxes to the very pinnacle and otherwise increased the costs to a point which was unbearable.

Frantically capital began to look again for a new location and spied the South, where there seemed to be every natural advantage for its development. South it came and grew until today the textile industry of the South is at the very top from the standpoint of production, employment and other evidences of size.

It was between the years 1880 to 1920 that the principal migration from the New England States to the South took place. Toward the end of the migration, the New England people frantically tried to save their industry by offering tax immunities, tremendous decreases in tax assessments, and other advantages, but they had "closed the gates after the colt had flown." The colt was the New England cotton industry. They have already lost a great industrial asset, perhaps never to see it return.

A study of the statistics of these migrations will indicate several trends that are worthy of careful note at this time. The first is that the ndustrial migration to the South virtually ceased 20 to 25 years ago. In South Carolina, for instance, where we have had a few enlargements of existing plants and replacements of machinery, there has not been a single major new cotton mill built in the State since the Pacific Mills plant at Lyman, which was erected in 1924. Think of that—not a single new cotton mill in the State during a period of 14 years!

Another factor worthy of consideration at this point is that for the past 20 years the textile industry in South Carolina has earned less than 3 per cent on its investments. It seems to have reached the point of diminishing returns for a steadily rsing cost of production and an uncontrollable market for raw materials and finished products have ground the profits virtually out of the picture. Now, industry is operated for profit, and without reasonable profits it does not justify its existence. This means that when the old plants wear out, they cannot compete with the modern plants, and they will be dismantled and junked. This means that if the unfavorable foreign competition continues, it is inevitable that many of the most modern plants will have to move on to other fields.

There are many plants today with depleted reserves considering whether it is the part of wisdom for them to try to invest new capital to carry on, or to preserve present equtites by liquidating. Circumstances point to the possibility of much liquidation during the next few years.

Another trend which is disturbing, is the growth of the industry in other sections of the world. While we are virtually at a standstill, during the first third of this century, Great Britain has decreased from 55 milliom spindles to 38 million spindles; New England decreased from 14 million spindles to 7 million spindles. And yet as the pedulum swings, one nation prospers at the expense of another and the Orient has increased during this same third of a century from 6 milliom spindles to 26 million spindles. Brazil, the leading South American State industrially, has increased from 1 million to nearly 3 million spindles. Here we stand today, struggling to hold our own, unable to induce new industries to locate with us, while India increases 99%, China 822%, and Japan 832%.

First of all, we must protect our workers and their working conditions; give them a fair wage, reasonable hours, that they may be happy and contented; and thus economically efficient as the producers of our textile products. On that we all agree. The greatest single asset to be derived from the cotton mills today, as far as our communities are concerned, and as far as our people are concerned, is their pay rolls—far greater than their dividends or their purchases of cotton or any other single item; and as we are primarily concerned with preserving our present pay rolls and bringing in new ones, our prime motive in seeking new industries is for the welfare of our working people.

However, we must be practical even in this thinking, for the manufactured products must be sold. It must be sold at a price that will enable the mills to utilize the returns therefrom in the production of additional cloth. Unless that can be done, the pay rolls will quickly diminish. No matter how idealistic we may be in the matter of wages or hours, if we place the industry of our State out on a competitive limb, with drastic legislative restriction, in this respect we can only anticipate that the predicted liquidation of the future will occur not in our neighbor States but in our own back yards.

There is not a mill executive in this State who would not welcome wage increases when they can be afforded, and deplore wage decreases, even though they be necessary. I know them well. I know that they recognize full well the principle that an adequate wage means happiness, contentment, efficiency, greater productivity, and ultimately a safer approach to profitable operation.

Did you know that the annual earnings of the South Carolina textile worker increased 185% since 1909, and that in 1937 they were 18% higher than the annual earnings of the average school teacher of South Carolina?

Did you know that the average weekly hours worked in Northern cotton mills in July, 1937, were 37.2 hours, and in the Southern mills only 34.9 hours?

Did you know that according to Federal figures in the value added by manufacture that 63.7 cents of each dollar is returned in wages by Southern industry to the textile worker, and that only 51.6 cents out of every dollar is returned by the Northern industry, and that South Carolina led all important textile States in 1935 in the amount paid its textile workers of each dollar added by manufacture? South Carolina paid 68 cents of each dollar in wages, while the Northern average was only 51.6 cents.

History shows that the textile executives have—as they rightfully should—not only been willing, but delighted to remunerate labor justly and fairly and as liberally as the markets would allow. I believe that the textile executives will continue that same policy in the future, as they have in the past. The danger of the policy is in the fact that it is so easy to raise wages beyond the limit which the market will justify. We have no assurance today that a faltering market, such as we have faced for the past year in the textile industry, is going to support the unusually high comparative wage scale which exists in the cotton mills of the State today.

It seems to me that in our frantic efforts to solve some of our social problems, some of us become too much interested in changing the rules of the game instead of in preserving peace and the elements of fair play. There

(*Continued on Page ~~50)~~* 47

Causes and Remedies for

CLOTH DEFECTS

Discussed by Eastern Carolina Division of Southern Textile Ass'n.

THE fall meeting of the Eastern Carolina Division of the Southern Textile Association was held in the auditorium of the Community House, the Erwin Cotton Mills Company, Durham, N. C., on Saturday, October 15th, beginning at ten o'clock. There were approximately 175 members present. The chairman of the division, J. L. James, of the Erwin Cotton Mills Company, Durham, presided.

After the call to order, Chairman James presented the Reverend M. Y. Self, pastor of the West Durham Baptist Church, who said the invocation and read a selection from the Scriptures.

Chairman James then presented Wm. H. Ruffin, secretary and assistant treasurer, the Erwin Cotton Mills Company, Durham, N. C., who in his welcome to the division said, "It is a great pleasure to have you here with us in Durham today.

"My company is greatly interested in your association. We are proud that our men are taking an active interest in its work. One of the fine things that can be said about your organization is that you have constructive programs. You really accomplish something. I am sorry to say that is not true of a great many functions and meetings that I attend, and I feel sure that you must have the same experience.

"Our industry is sometimes accused of being backward and making no progress, and I regret to say that it true financially. Goodness knows we need to make some progress in a financial way. We need to make a consistent record of reasonable earnings, which few of us enjoy. But we have made progress, I think, in the manufacturing part and in the handling of employees. The latter accomplishment, of course, is a very fine one. And you and I know that we could not hope to deliver today, against our contracts, goods of the same quality that we produced six or seven years ago; the trade simply would not take them. I venture to say that if you were making a product of the same quality that you made six or seven years ago, you would not be holding your present job, and I dare say that your spindles would be among the eleven million idle ones today. We have had to make progress, and you gentlemen have done it. I am sure this association has been helpful in making this progres.

J. B. Batten, Sr., Vice-Chairman of the Eastern Division

P. B. Parks, Jr., Chmn. of Board of Governors of S. T. A., who took part in the meeting

J. L. James, Chairman of the Eastern Carolina Division

George Gilliam, Secretary of the Eastern Carolina Division

"Others have been making progress, too. You know we used to be told that we did not have to worry about Japanese competition, because they could make coarse goods but could not make fine goods. A friend of mine sent me this handkerchief from Kobe, Japan. I have never seen as fine and sheer a piece of goods as that made in America.

"I shall not take more of your time, because I know you have an interesting program ahead of you. But let me say again that we are delighted to have you in Durham." (Applause).

Chairman: At this time we will hear from D. F. Lanier, of Oxford.

D. F. Lanier, Supt., Oxford Cotton Mill, Oxford: Mr. Chairman, Mr. Ruffin, Ladies and Gentlemen, it gives me some degree of pleasure just to say in a very simple kind of way that we are happy to come back to Durham for another meeting of the Eastern Carolina Division of the Southern Textile Association, for two reasons. Those reasons are that we always have a good crowd and that we always enjoy the discussion, for in some way or other we have better discussions here than we do in other places,

Georgia Mill Men Discuss Cloth Room, Weaving and Slashing At Fall Meeting

THE Textile Operating Executives of Georgia met at the Administration Building of the Georgia School of Technology, Atlanta, Ga., on Saturday, October 8th, with about 300 members and guests present. Vice-General Chairman Allen Jones, of the Muscogee Manufacturing Company, Columbus, Ga., presided in the absence of Chairman A. D. Elliott.

At the meeting of the Executive Board, on the preceding evening, Allen Jones was elected general chairman; J. C. Platt, agent of the Chicopee Manufacturing Company, Gainesville, Ga., was elected vice-general chairman; and Robert W. Philip, editor of *Cotton*, was re-elected secretary.

At the morning meeting, Hal Daughdrill, general superintendent of Callaway Mills, LaGrange, Ga., was elected a member of the executive committee, to serve two and one-half years.

Introduced by T. M. Forbes, secretary of the Cotton Manufacturers Association of Georgia, James V. Carmichael, member of the Georgia State Legislature, made a very interesting and instructive talk, which was well received by the audience.

Weaving

(Discussion led by W. H. Gibson, Jr., superintendent of Martha Mills, Thomaston, Ga.)

Mr. Gibson: We have two questions under the heading of the "Cloth Room." That is the little difference that we have been talking about. I don't think we have had a cloth room discussion before. I am going into the question now. These two questions are under the heading cloth room.

Determining Yardage in Cloth Room

Question No. 1 is as follows: *"What method do you use in determining the yardage of the folder, calender, etc.? How often are the machines checked, and in what manner?"*

Mr. Sweeney (Atlanta, Ga.): After the cloth comes from the folder there is a mark put on the piece of cloth, and it is laid on the table. Then that is recounted. We get a check on all of the yardage. Then the overseer picks out a piece of cloth and counts it, and gives it an additional check. There is an additional check when they go to weigh that cloth. That gives some indication of the care that is exercised in determining the yardage and checking it. If there is any material difference shown, we recount the whole bale.

On the calender, of course we have the usual device which measures the yardage, and the goods come over the measuring roll. On light weight goods we have some gain on the calender.

Question: How do you tell whether your folder is giving full yardage? Do you measure it at the beginning or the end?

Mr. Sweeney: We measure it at the beginning, in the middle, and at the end of it, and see that it is 36 inches as near as we can.

Mr. Platt: I would like to find out whether you find on heavier goods the folders have to be readjusted after you fold the light weight goods on the same folders?

Mr. Sweeney: There is a difference there. We regulate that by means of the folder putting more drag on some fabrics than we do on others. On light weight goods, we have less drag and on heavier weight goods, more drag on the top of your folder.

O. D. Grimes, Jr. (Athens): We follow substantially the same process.

Mr. Holton: We use the same method as that followed by Mr. Sweeney there.

Mr. Fletcher: We follow the same plan as outlined by Mr. Sweeney.

Mr. Platt: I think this is a very important question, and will merit some discussion. In the first place there are so many factors entering into the measurement of the goods that it is almost impossible to just be sure you are right or on the far side all the time. We have found you can measure goods and put them in the warehouse, and leave them there three months, and then check them up, and they won't measure the same as when you put them in there. There are shrinkages often times, and I have known of cases where there have been allowance made, and they went to an extent of making those allowances so as to be on the safe side when measured later.

We have given a little study and thought to this matter, and we believe it will pay us, in order to be sure we are right, to have three face counters on our measuring machines. One of them will register the length of the loom roll, that went into the larger roll. That will be a reset. The next count will register the length of the roll, and that will be a reset, and there will be at totalling counter. We think it is worth while to check those carefully and have it recorded, and we can tell at least whether we are making and catching up with some mistakes. I think this thing of folding it reveals some very illuminating results. We find as it pulls out there is a quarter of an inch difference often times. There is a difference if you leave your folder in the same state on different weight goods, and you will find the light weight goods will be longer. Therefore you have to check your folder to suit the goods. Then the question that might

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Design, and
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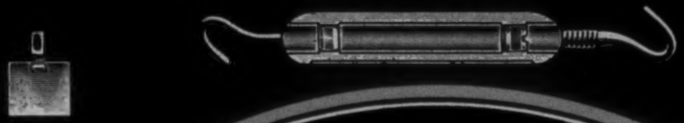

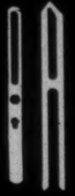

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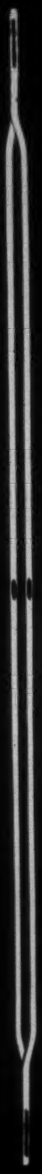

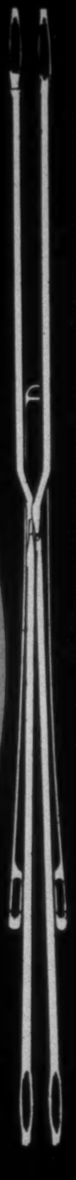

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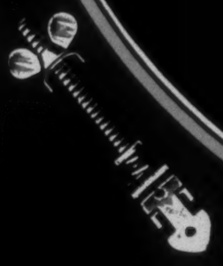

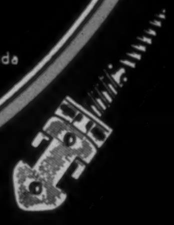

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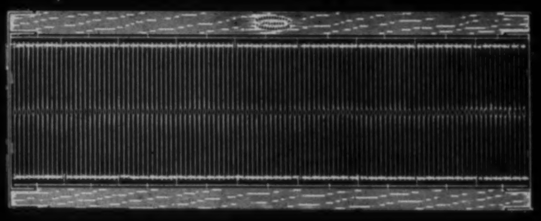

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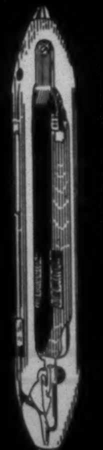

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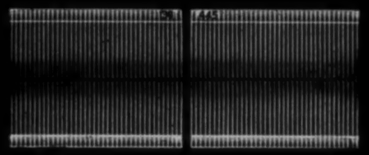

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be brought out is that you had better test your folds at or around the center of the bolt, so that you will be sure the yardage is correct.

Mr. Edwards (Gainesville, Ga.): We make several checks of it on the folder. We take a piece of cloth and run it through the stitcher. We double-check that. We also check by marking off a certain number of yards on the floor, and we check that. We have a check on our scales. I have only had to make adjustment on my roller one time in two years. After we run the cloth through that stitcher, we count the number of folds so that we can tell if our folder is correct.

Method of Reporting Seconds To Weave Room

Chairman Gibson: We will pass that question now, and go to the second question, which is as follows: *"What method do you use in reporting seconds back to the weave room? Explain in detail."*

V. J. Thompson (Griffin, Ga.): As soon as the work comes off the folder it is inspected. If seconds are found, and it is something small, the cloth room man gets a weaver or second hand there and sends all the seconds out to the weave room, and they are shown to the weavers on the different shifts. In that way we keep pretty well up with that all the time. If anybody else has got a better method than that, I would like to talk to him.

Mr. Lehman: We use practically the same method that Mr. Thompson does. Everybody tries to get the cloth back to the weavers as soon as they find there is a defect.

An interesting thing we have done is to make a record on each loom. If that defect slips back to the cloth room, there is an individual record on each loom, and if the defects appear on the same loom several times or often, you might say, we have a means of checking it. That is the method we use.

Mr. Cobb (Canton, Ga.): In the cloth room we have a little pad on each inspector. On that is placed the loom number and the defect. We have this loom number and the defect and the second hand checks up these little things. It goes to the weave room office, and in the office we have a book which is a little single ledger book, that has about four numbers or places on it, and on this he sets down the date, the loom fixer's initials and the defects. We have the defects with his initials on there, and then he goes back and gives this back to the loom fixer, and the loom fixer is supposed to fix the loom. If we have a second report on this loom, this is marked in red pencil "second report," and the loom fixer gets right on that loom and he is to be sure that he gets it fixed before he leaves. Sometimes, if we have a third report, the second hand goes to the loom with the loom fixer, and if necessary, that loom is overhauled completely. Of course, we all know that in general the weavers look out for seconds, but keeping this record in the overseer's office is a checkup on the looms, and you can check down pretty closely, and you can keep that before you, and the seconds will be cut down considerably.

Mr. Cobb: As far as I am concerned, I don't think our method of reporting seconds would be worth while, because we are still making seconds. (Laughter). If we find a red mark showing the entire length of a cut, this is reported immediately to the weave room, if it is what we call ordinarily a general run of seconds, they are shown each day to the weavers, and if there is anything out of the ordinary, it is reported to him then. He is supposed to go and check that loom, although we still have a few seconds. (Laughter).

Mr. Glenn: I don't think I can add much to what Mr. Thompson and Mr. Lehman have had to say. When a roll comes from the weave room showing seconds, it is sent right back to the weave room, and we keep a record of all bad cloth by loom numbers.

A Member: We have a record in the cloth room, and the loom number is put on there and the defect, thin places, or whatever is wrong with it. That is sent back to the weave room, and the second hand and loom fixer go to the loom and see that it is fixed. If we don't get it fixed, or if we have complaints, we keep on until we do get it fixed and stop the complaints.

Chester Jackson: We have practically the same method. We have two different records we keep. One of them is a record kept of each section in the weave room. On that record is the number of seconds that week, and through the superintendent's office that goes into the weave room office. We keep up with each section of the mill. Also we have a production report.

Mr. Moore: Our system is identically the same as the other gentlemen have outlined. We still make plenty of seconds. (Laughter).

Chairman Gibson: A fellow told me the other day that the boss came through and said to him, "You can take those looms off of seconds now, as we have got all those orders for seconds filled." (Laughter).

That concludes the two questions under the heading of "Cloth Room." Has anyone any question that he wants to ask before we leave that subject?

A Member: We have one mill which shows about one per cent seconds, and the other mill in some cases two per cent seconds. That difference is occasioned by the difference in the weight of the bolts. Some mills report seconds up to 10 yards, some up to 20 yards. I would

(*Continued on Page 51*)

Some Information on
LOOM UPKEEP

Useful information for the mills that are interested in keeping their looms in good condition and at peak production in these times when an inefficient weave room may be a distinct liability.

By Thomas Henderson
Draper Corporation

LOOM UPKEEP, or the lack of it, covers a wide range of virtues, or sins, as the case may be. Considering the "X" Model family of looms with which we are all more interested, we must assume that they are in fairly good condition, as they have been in service a relatively few years, and the question is, "How shall we keep them up to their present efficiency and avoid the mistakes we made with the older model looms by permitting them to become run down to a point where we had to do a job of general overhauling, with the loss of production while this work was being done?"

With the object of keeping "X" Model looms up to pitch, one system which proves to be a great help to the fixers is that of using gauges for the setting of all attachments on the looms. One reason why gauges are such a great help is because practically all sections of looms now have two or more fixers. Another reason for the gauges is that where you run two and three shifts, it is impossible to get all experienced fixers for every section and every shift. The use of gauges seems to be an equalizer between the experienced fixer and the learner, or one who has not had the benefit of long experience on different styles.

In most weave rooms the styles vary such a little that there is no reason why there should not be a standard setting for every loom, the proper setting to be determined by the overseer, second hand, or others in authority. These loom settings should cover the position of take-up roll, warp stop motion, whip roll shaft, whip roll, the timing of harnesses, the size of shade, the timing of pick motion, and also the power of the pick motion. While on the subject of the pick motion, there is no reason why one loom should have the lug strap set eight inches high on the picker stick and only about six and one-half inches up the stick on another loom of same size and model. This refers also to the pick arm. There is no good reason for setting this part long on one loom and short on another.

One good method for gauging the height of lug straps is to paint the picker sticks just above the correct position of the lug strap. Then, if the lug strap is lowered, the unpainted section of stick showing about the lug strap indicates to the overseer, or second hand that the loom is becoming off-standard, and corrective measures should be taken before the loom and the section of looms get out of control, because it is this kind of control that has a great bearing upon the "Upkeep of Looms."

Then, there is the question of shuttles, and this is not always given the attention it deserves. There are some mills where it is so easy for a fixer to get a new shuttle, that if he is having trouble with one from making broken picks, or otherwise making it necessary for the weaver to flag the loom, that he will break the shuttle in order that a new one may be obtained and the trouble overcome in this manner.

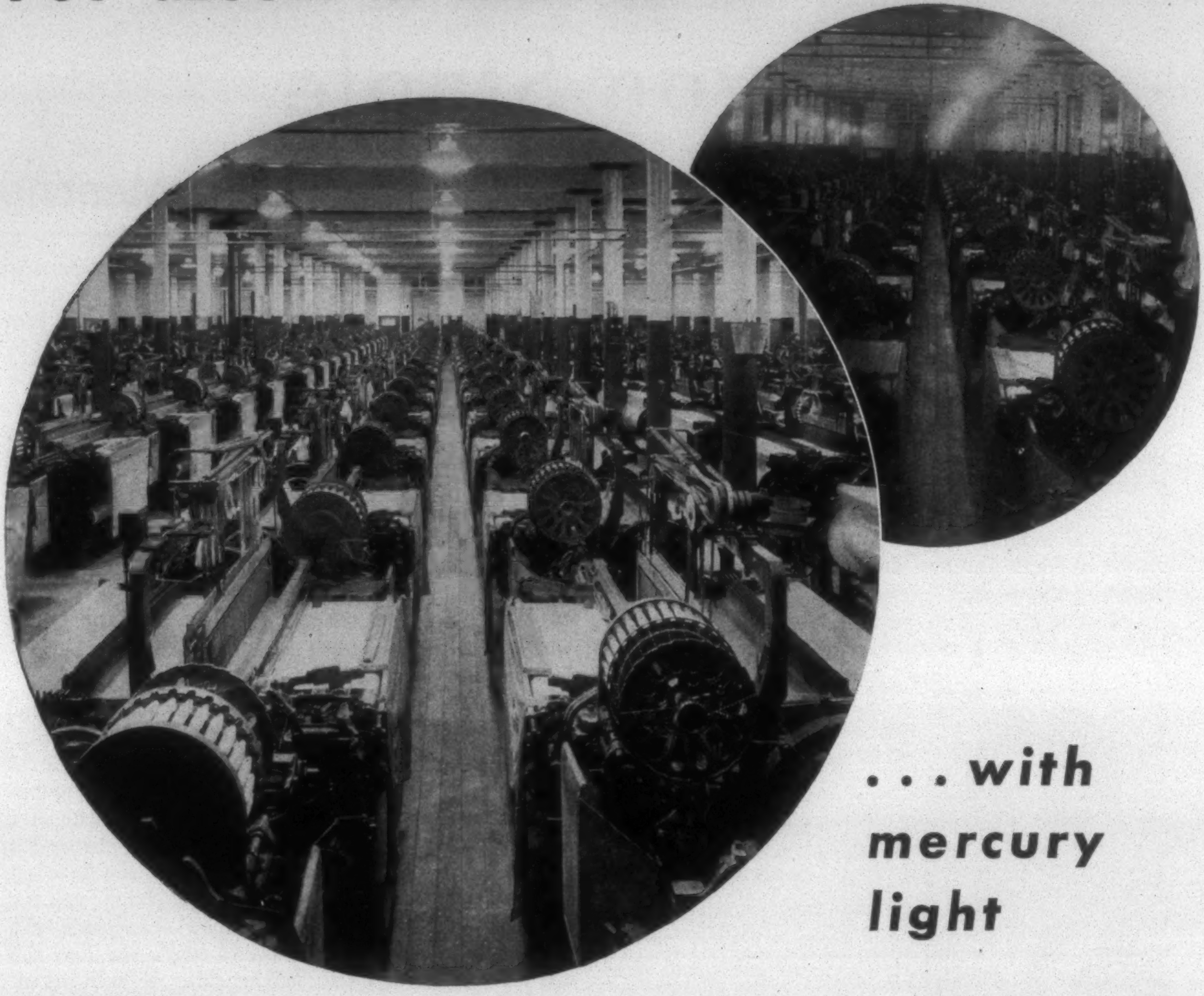
Many mills charge the shuttles against the loom fixer, but I believe that they should be charged directly to the loom, so that a check up will reveal whether it is a few looms that keep the shuttle cost high for the whole section.

Some superintendents become excited if they have to sign a requisition for a few shuttle springs once in a while, but I believe they would find more reason for concern if they would investigate those periods during which they accumulate extra springs. Invariably you will find that an accumulation of shuttle springs means that you are not getting the service from your shuttles. They are being thrown out and broken, or they are being cut away by bad reeds, or by misalignment of back box plates and reeds. So, if you are not buying extra shuttle springs at 22 cents each occasionally, and feel smug about it, you may be very sure that you are buying extra shuttles at $1.70 each, more or less.

I believe that the shuttle consumption should be scrutinized very keenly; that a fixer should take a broken or worn-out shuttle to his second hand or overseer before being able to obtain a new one; that all shuttles should have the date of issue stamped on them, and by this, the overseer or second hand should

(*Continued on Page 36*)

PUT GLOOM IN ECLIPSE...



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S. C. Carders and Spinners Discuss

Rayon Staple

At S. T. A. Meeting

THE Carders and Spinners Section of the South Carolina Division of the Southern Textile Association held their Fall meeting in the ball room of the Poinsett Hotel, Greenville, S. C., on the morning of October 15th, the meeting starting at 10 a. m. Approximately 300 members were present.

The meeting was called to order by Joe Lyons, Jr., of the Orr Cotton Mills, Anderson, who is general chairman of the South Carolina Division. He introduced William P. Jacobs, president of Presbyterian College at Clinton, S. C., and secretary of the Cotton Manufacturers' Association of South Carolina, and whose address appears on page 9 of this issue.

Following the address by Mr. Jacobs, the assemblage entered into a discussion of carding, led by R. T. Stutts, superintendent of the Woodside Cotton Mills at Simpsonville and Fountain Inn, S. C.

JOE LYONS, JR.
General Chairman of the South Carolina Division.

A stenographic report of the proceedings follows:

Carding

Mr. Stutts: I notice in some of the questions that we are supposed to discuss this morning, rayon is one of the principal features. This rayon question is one that every one is talking about, but some of us have not had much experience with it. Those of us who have had experience in it are kind of reluctant in stating just what problems we have encountered, and why and how you worked them out, because we don't know whether we will hit the right answers or not.

I would like for every man who has had experience with rayon, spun rayon, to raise his hand. I only see about three or four men who have had experience. I hope they will give us some information about this particular thing. I know there are certain points of the rayon industry here that these men who have had experience won't mind telling us.

One of the main questions confronting all of our minds is one which we might ask those men who have spun rayon—what changes would you have to make in your old machinery? In other words, if the question came up to us, what changes would be necessary in running our old cotton machinery? What would we have to do, if we go on rayon? I wonder if Mr. Crow would tell us what difficulties he had, if any, in adjusting his old cotton machinery for running rayon?

Mr. Crow: We did take our regular machinery and ran cut rayon in it. From one process picker, carding, drawing, roving frame, and all, and right on through the spinning. We didn't encounter a great deal of trouble. We did have to conduct certain experiments to find the necessary speed. We found it necessary to change the speed in some places, and then, of course, you have got to set your rollers all according to the staple you are running. I have heard—I don't know, I have not seen them myself—of one or two places where one steel roll was taken from the frame, making three roll drawing instead of four. I didn't do that. I found it practicable by making certain changes so that we could open up the rollers sufficiently to take care of the staple. With the roving frames we had very little trouble in taking care of 1½-inch to 1-9/16-inch staple.

I tried it several ways on the roving frame. I tried running the middle roving unweighted. I tried it running all three in the regular way, weighted as you would run cotton. I didn't find a great deal of difference from that standpoint.

Some people think they get better results from a change of licker-in speed at the cards. I did not change the speed of my licker-in. I ran that the same as I had before. As a matter of fact, I didn't make any material change in the setting of the cards. I do think, however, that there is some advantage to be gained at the pickers

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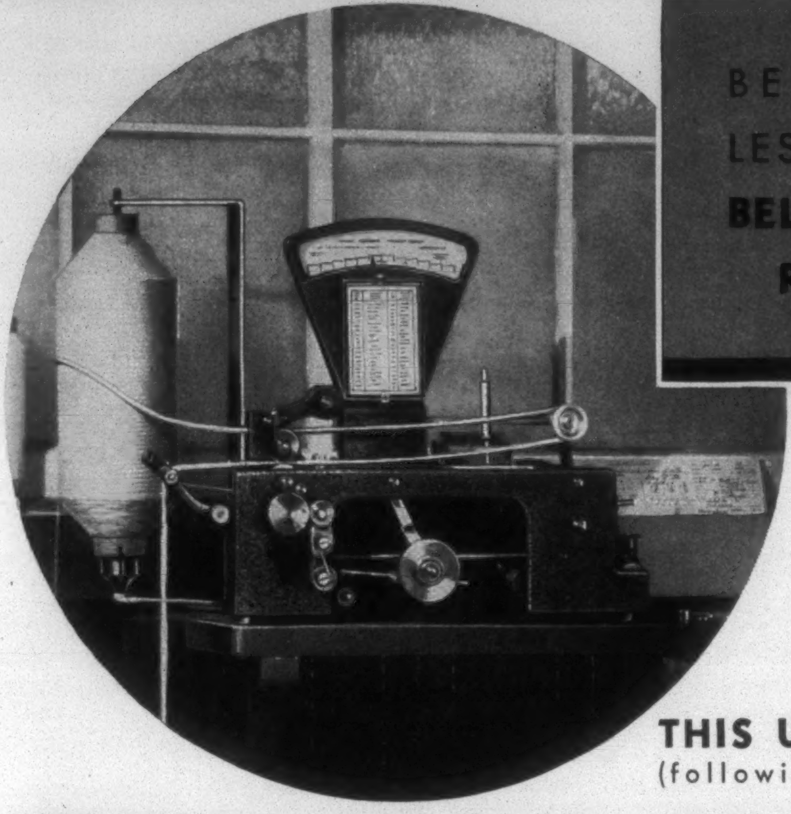

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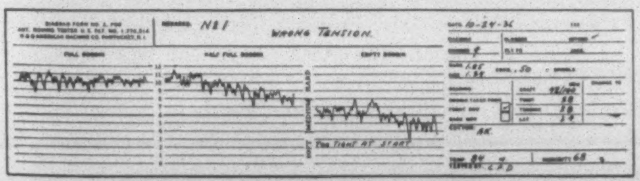
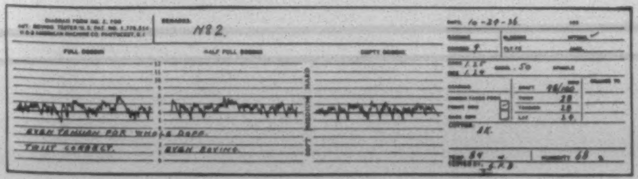


SAMPLE CHARTS FROM THE TESTER



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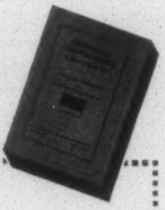

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to reduce the speed of the beaters, particularly where the beaters are running from 800 to 1200 r.p.m. I think we can benefit by reducing the speed of the beaters under that speed. I think in general on the subject of spun rayon that there are certain difficulties in each plant, local conditions, that each plant will have to work out for itself. What I might do, or be able to use, or how I might operate, in our plant, perhaps would not be workable in every way in some other plant. We found it necessary to make several inquiries, and check up with other mills to get their experience in running spun rayon before we started, and we found that some of the things they were doing were not applicable to our local conditions. I found it necessary as a result of that to conduct several experiments in order to find out just what would fit our conditions and what would overcome such difficulties as we might encounter in view of our local conditions.

Chairman Stutts: I would like to ask this question of one of you gentlemen who raised your hands. There are several companies that put out different types of rayon, several different commercial companies. Where you have tried one type of spun rayon, and you changed from one company's rayon to another company's rayon, using the same staple length rayon, does it make any material difference?

Mr. Crow: In domestic makes I don't think you would notice much, if any, difference at all. I understand that there are one or two foreign types that do give you some trouble, even though the staple is the same length. I understand it is necessary in the case of one or two foreign makes to slow your speeds down right considerably to get satisfactory results.

Chairman Stutts: Since this staple length is considerably longer than what you ran on cotton, do you have to slow your roving frames down, when you eliminated your twist?

Mr. Crow: Not considerably. You slow it down some. In other words, I would say slow it down to about the same front roll speed that you would have to run cotton at about the same hank roving and staple length.

Chairman Stutts: Mr. Brannon, what change did you have to make in the picker room? First tell us how you fed your stock in? Did you have to mix it or condition it any?

Mr. Brannon: No, sir. We got off 10 to 15 bales, each bale about 400 pounds, and this particular rayon was an Italian product. I was running one process pickers, and I had three blade beaters, and I found my breaking strength was very low. I fed my lint into the hopper, and slowed the beaters down to about 600 r.p.m., and I never had any more trouble along that line, but I did find that you couldn't pull the lap, so I turned the lap pin down to about ¼ inch smaller in diameter from one end to the other, and that eliminated that trouble. That was about the only trouble except closing up my grate bars. We have to clean them out about every two or three weeks, running 5,000 pounds a day.

Chairman Stutts: I would like to ask you this question. Did that reduce your strippings on your cards?

Mr. Brannon: On this particular job, I reversed my stripping from the front to the back. I built a stand at the back of my cards, and fed my strips back in, and of course I had to change my plate to bring my sliver down and turn my strips back into my cards. I just reversed it.

Chairman Stutts: In other words, you flat strips fell back on top of your lap?

Mr. Brannon: Yes, and I got along very well with that.

Chairman Stutts: How often do you strip those cards?

Mr. Brannon: Three times every 8 hours.

General Chairman Lyons: If you were running some of the domestic rayons, how often would you strip your cards?

Mr. Brannon: Twice.

Chairman Stutts: I was talking with a rayon man, and he suggested stripping the cards once every 8 or 16 hours. I thought that was quite an interval in there, but he seemed to have picked up a lot of information, and from that I inferred that there were mills that were only stripping once every 16 hours.

Mr. Brannon, do you have any excessive amount of waste in your picker room?

Mr. Brannon: I would clean out there about every three weeks, and get about a double handful.

Chairman Stutts: That fly under your cards—do you get any of that?

Mr. Brannon: I set my screens about as close as I can, and we clean out from under our cards as we grind. We grind every 14 days, and we get about as much fly as you would get out of a good grade of cotton.

Chairman Stutts: Would you use that fly over again?

Mr. Brannon: No, sir. We tried to, and we decided to put it in the waste.

Chairman Stutts: If there are some of you gentlemen who would like to ask question from the floor, speak out.

Question: How much do you card per hour?

Mr. Brannon: About 8 pounds per hour, but my experience has led up to that. I started off at about 5 pounds. Everybody seemed to be afraid of it. I ran it up as high as 12, and I didn't see that I did any harm with that, and I was running 50-grain sliver and I put it up to 60. It used to be said that it would be advisable to cut it down to 3 or 4 pounds, but I don't think that is necessary.

Chairman Stutts: Mr. Brannon, I am picking on you a lot there, but I would like to ask you do you think that, if a mill were to decide to go on rayon on a big scale, that there is a possibility of eliminating the picker room, and using some kind of a device to feed direct behind the cards?

Mr. Brannon: Yes, sir. I think if they do that, they will make an improvement on spun rayon. If you could get the hopper behind the cards, where you could handle it that way, that would be going somewhere in spun rayon. One day I thought I would put the hopper behind the card, and I found I would have to put in an

(*Continued on Page 44*)

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Discussion on
Carding and Spinning

At the Regular Fall Meeting of the Gaston County Division of the Southern Textile Association

The first part of this discussion, covering such points as the 1938 cotton crop, vertical opener speeds, beats per inch on cotton, and variation in card sliver, was published in the October 15th issue. The discussion is continued here, with Marshall Dilling, chairman of the Division, presiding.

Effect of Card Sliver Weight On Breaking Strength

Chairman: The next question is: "*Will light or heavy card sliver have any effect on the breaking strength of yarn? If so, what?*"

D. H. Cauble: Wouldn't that depend upon whether or not you change your draft? When you change to lighter, increase your draft.

Chairman Dilling: I do not know just what that might do. I know I tried to put in longer draft on the card at one time, and it did not work well, and I had to go back.

If nobody can give us anything on that we will go on to the next subject. "*How many grains variation is allowable in one-process drawing?*"

Some of us have only one process of drawing. If we can work it with one process, it is better than two. How much variation do we have on one process? Do we have more than we would like to have?

Mr. Mosteller: Will you not find more variation with one process of drawing than you will with two? We had that experience at our place. We started to put in the one process and ran it a while, and it varied right much. We changed it back to two process and eliminated that, and the drawing ran evener than it did.

Chairman: So you prefer two to one. How much variation do you allow in your two processes?

Mr. Mosteller: Well, there will be anywhere from about four to six grains.

Chairman: On what grain sliver?

Mr. Mosteller: About 56.

Chairman Dilling: Well, that would be about ten or twelve per cent, then. Who has some other information to give us? Mr. Fisher, what is yours?

Mr. Fisher: We run the single process, of course combed work. I do not know how you mean, but I take it by the drawing frame, each head of the frame. We have some with four deliveries and some with six. On the four-delivery frame we have a variation of about 2.0 to 2.2 grains, with four different heads. On the six-delivery frame, about 2.5 grains. With the six heads we weigh anywhere from two to four yards of each sliver.

Chairman: What grain of sliver is that?

Mr. Fisher: 55 and 65. There is a little bit more variation on the 55, the lighter sliver, than on the heavier.

Chairman Dilling: That is a very good percentage.

Question: Why would there be any variation because of the number of deliveries?

Mr. Fisher: Well, you have more to weigh from. You take them and add them up and get the average.

D. H. Cauble: We think it is getting pretty bad if it goes over two grains.

Chairman: You have good drawing.

Mr. Grice: Ours runs about four and five grains variation on a 65-grain sliver—60 to 65-grain sliver.

Chairman: That is nine or ten per cent?

Mr. Grice: Yes, sir.

Charles Ward, Overseer Carding, Groves Thread Co., Inc., Gastonia: Our variation runs about three to four grains. The sliver weighs about 60 grains, and the average variation is about four grains.

Chairman Dilling: I might say mine runs about seven to eight per cent, usually. Mr. Cauble's is very good; I think I shall go around to see him.

Mr. Winget: Is it the general practice to run a single process of drawing where you have slubbers, intermediates, roving frames and jacks? Is that the usual custom, or is it better to have double drawing in a mill of that type?

Chairman: I think where you have four processes of roving frames you do not need two processes of drawing.

D. H. Cauble: On drawing, a lot of people to whom I have talked are changing to a solid roll. What advantage has that over the ball-bearing?

Let me say this while I am up. One way in which we keep our drawing as even as we do is that we have a cork-grinding machine, and periodically we take off the rolls and get that concave out of the middle. You know when a roll has been on for a while it gets a concave place in the middle.

Mr. Ward: I tried some time ago to buy some ball-bearing rolls or something that would be better than what I had, but I could not find anything. So I had new ends put on my old rolls. I think the trouble there is at the ends, where the ball bearings get out of adjustment.

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Spreading Flyers On Roving Frames

Chairman: We will now take up the next question, No. 9: *"What are the advantages of spreading flyers on roving frames? What are the disadvantages?"*

During the last few years a number of mills have had their flyers spread. We have had time enough to find out what that does for us. Does it do good, or does it not?

S. M. Cauble: My object was to get a larger package, and one other thing was to eliminate quite a bit of creeling. That gives a better yarn, because we do not have to creel quite so much. We had our flyers spread from six by two and a half to six by two and three-quarters. I run them seven hours and twenty minutes longer in the creel on the spinning frame after the spread than we did before. So you see that in a period of months or years years you have eliminated lots of piecing there. As to the disadvantages, I do not see any disadvantages at all. I might say, Mr. Dilling, we had ours spread from the slubbers through the jacks—had them all spread thoughout.

Mr. Dilling: So you gained quite a lot in the size of the package?

Mr. Cauble: Yes, sir.

Mr. Ward: We spread some 7 x 3 flyers—spread those some. We had 9 x 4½ and spread those, and some 11 x 5½ that we spread. On the small flyers, 7 x 3, that was very satisfactory. The advantages on the others was a large bobbin, of course, but the disadvantages were more than the large bobbin would amount to, from the trouble we have had since we spread the last flyer. When we spread the flyer we pulled the finger off the center of the bobbin. The bobbin has never built as pretty a bobbin as it was before. When you doff you have quite a few ends run over. It also shortens the flyer when it spreads out; it pulls the finger farther away from the bobbin, and by pulling it off the center of the bobbin it causes the pressure to go just a little farther in. The presser will whip out and cause a lump to accumulate there in the flyer. Of course, after the doff runs possibly a fourth full, why, that will move out, and you are not bothered with that. But on an empty bobbin you will have that trouble with that lump accumulating in the bottom end of the flyer. We find right much more tangled work now than we did before. The small flyers are all right, of course; we have had no complaint on those.

S. M. Cauble: I can't understand why that should work any different on a large flyer than on a small one. It should certainly work in proportion. When we had our flyers changed we had them worked over. We have 11 x 5½ slubber, 9 x 4½ intermediate, and 8 x 3½ jack. We did not find any trouble at all.

Fuzzy Yarn

The next question reads: *"What causes fuzzy yarn, and how can it be prevented?"* I asked Mr. Richie to tell us how to keep from making fuzzy yarn. Mr. A. P. Richie.

Mr. Richie: I am going to tell you what causes it, or what I think causes it; I am not going to tell you how to prevent it. Some mills are bothered with it more than others, and at some times of the year we are bothered more with it. Some of the causes are inferior cotton, irregular waste mixer, the cotton's being worked too much, bad roller settings, too long a draft, worn rings, failure to change travelers (you know, many of us fine-yarn men think travelers ought to change themselves), spindles out of plumb, not enough twist. The reason I mention the last is that in a mill where there is good control of humidity it keeps down the fuzzy yarn that you make back in the card room, due to the fact that any fiber that goes over any object pulls back, it doubles back and probably you do not straighten it, and it goes through the roller and goes on through, and the twisted end sticks out then. It affects your breaking strength, because it does not tie in with the twist. A mill that has proper humidity holds a good deal of that in. A man in a mill with the proper humidity has the advantage of the fellow that does not have it when it comes to fuzzy yarn. But it is due to a number of causes, not to any one thing. I contend that overworked cotton is one of the worst things. Bad roller settings and bad rollers are another cause. Too long draft pulls your ends out, if you draft over your rollers, and throws part of the fiber out to each side.

I don't know how to stop it, but I am sure some of those things cause fuzzy yarn.

Mr. Grice: I am bothered with it, all right, but I don't know how to stop it. I think it is caused by all those things Mr. Richie named, and one other thing he did not mention, and that is speed. I think if it is too soft and you run at too high speed it brings out the fibers. If you have the proper twist and the proper humidity you can hold it down; that will eliminate quite a bit of the trouble. As I said, I think all the things Mr. Richie enumerated are causes; and of course the nearer we can come to having them corrected, the nearer to plumb our spindles are, the newer our rings, the more accurate our settings, the more regular they are, and the proper amount of humidity will all help to eliminate it. But I have never been able to get rid of it entirely.

B. Ellis Royal, Secretary, Southern Textile Association: Is there much of that trouble on combed yarn, Mr. Dilling?

Mr. Dilling: Yes, there is quite a bit on combed yarn.

Mr. Royal: Then it should not be attributed to the short fibers.

Chairman Dilling: No. You have taken a good deal of short staple out, so you do not have as many short fibers. Combed yarn is made of longer staple cotton, and you do not have as many ends. But you do have that trouble with fuzziness on combed yarns.

Mr. Winget: It is more noticeable on soft-ply yarn than on hard ply.

Mr. Dilling: Yes, the hard twist helps to hold it down.

Mr. Winget: And it is less noticeable when you run it through water to twist it.

Chairman Dilling: Yes, I expect the fellow that invented it thought of that.

(Continued on Page 39)

IDEAS THAT Clicked
HOW CAN WE HELP USERS SAVE ON HORSEPOWER AND STEP UP HEATING EFFICIENCY?
WIDE AREA BLADES! THAT'S THE ANSWER FOR EFFICIENCY
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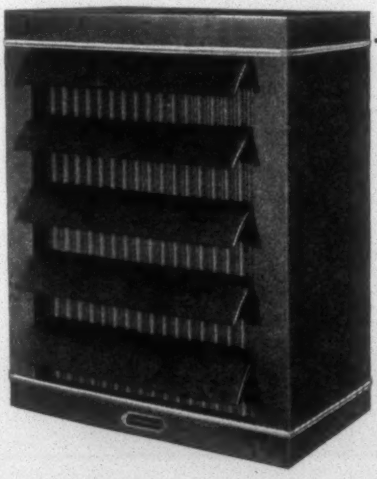

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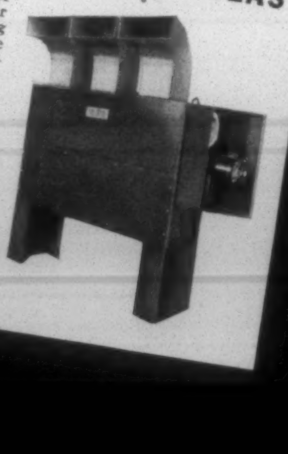

AMERICAN BLOWER

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Personal News

C. G. Voss, superintendent of the Imperial Cotton Mills, Eatonton, Ga., has resigned.

R. Rostron is now overseer of the cloth room at the Alabama Mills, Inc., Wetumka, Ala.

W. L. Steele, Jr., has resigned as secretary-treasurer of the Locke Cotton Mills, Concord, N. C., which stockholders recently voted to close.

D. R. Senn, general superintendent of the Sibley-Enterprise Company, Augusta, Ga., has resigned.

Jim Kelly has been promoted from overhauling to the position as second hand of No. 3 spinning at the Thomaston Cotton Mills, Thomaston, Ga.

A. L. Larkin, formerly a card grinder, has been promoted to the position of overseer of carding at the Bradford Mills, Prattville, Ala.

J. P. Woods has been made second hand of No. 2 night spinning at the Thomaston Cotton Mills, Thomaston, Ga..

Charles C. Hertwig, treasurer of the Bibb Manufacturing Company, Macon, Ga., was the winner in a recent golf tournament held for Bibb golfers at Macon. Hob Hodgson, of the sales department, was runner-up.

J. W. Roberts has resigned his position as superintendent of the Angle Silk Mills, Inc., Rocky Mount, Va., and has just moved with his family into their new home on the Cannon Boulevard near China Grove, N. C. Mr. Roberts had been with Angle Silk Mills for seven years, and prior to that time was with the Gibson Mills at Concord for fifteen years.

Elliott White Springs, president of the Springs Cotton Mills of South Carolina, presented the history of the early settlement of Fort Mill, S. C., at the Unity Presbyterian Church recently, when the sesquicentennial of the church was celebrated.

COMING TEXTILE EVENTS

NOVEMBER 3-4

North Carolina Cotton Manufacturers' Association, Thirty-second Annual Meeting, Carolina Hotel, Pinehurst, N. C.

NOVEMBER 19

Piedmont Section of the Southern Textile Association, Fall Meeting, Charlotte, N. C. Chamber of Commerce, 9:45 A. M.

DECEMBER 2-3

American Association of Textile Chemists and Colorists, Annual Meeting and Convention, Atlanta, Ga.

V. C. Adams has been promoted from the position of second hand to that of overseer of the cloth room at Pacolet Manufacturing Company, New Holland, Ga.

H. C. Neren, of Roanoke, Va., director and general manager of the American Viscose Corporation, was elected president of the Virginia Manufacturers' Association at the closing session recently at Old Point Comfort, Va.

L. W. Flynn, who held the position for several years as superintendent of the Gayle unit of the Springs Cotton Mills in Chester, S. C., has sailed on the S. S. Eastern Prince for Buenos Aires, Argentina, to take up new duties as carding master in the Sudaintex Mill.

Cason J. Callaway and Mrs. Callaway were hosts recently at a barbecue assembling the members of the LaGrange Lions Club and their guests at Blue Springs, country estate of Mr. and Mrs. Callaway.

C. W. Sanderson, Southern manager and district manager at Atlanta for Armstrong Cork Company, has been granted a leave of absence from the company due to ill health.

Fred L. Smyre, of Gastonia, N. C., has been elected president and treasurer of the Locke Cotton Mills Company, Concord, N. C.

Harold Lamb, president of the Union Manufacturing Company, Union Point, Ga., is reported to be improving after having been ill with bronchial pneumonia.

H. T. Carpenter, formerly of Cherryville, N. C., has accepted the superintendency of the Imperial Cotton Mills at Eatonton, Ga.

Hal Daughdrill, general superintendent of Callaway Mills, LaGrange, Ga., has been elected to serve on the executive committee of the Operating Executives of Georgia.

Stuart W. Cramer, president of Cramerton (N. C.) Mills, Inc., was chairman of the 17th United States Navy Day for the State of North Carolina.

William Elliott, Jr., a director of the Santee Mills of South Carolina, has accepted the co-chairmanship of the professional division of Community Chest campaign at Columbia, S. C.

H. B. Jennings, recently retired president of Jennings Cotton Mill and Mansfield Cotton Mills, Inc., Lumberton, N. C., scored a hole-in-one on the Lumberton golf course.

Wm. P. Jacobs, secretary of the Cotton Manufacturers' Association of South Carolina, was the principal speaker at the fall meeting of the Carders and Spinners Section of the South Carolina Division of the Southern Textile Association in Greenville, S. C., October 15th.

W. K. Holt, Jr., has been made secretary of the McEwen Knitting Company, Burlington, N. C.

E. R. Knight has been promoted to the position of assistant superintendent in charge of the night shifts of Sanford (N. C.) Cotton Mills.

E. H. Dreher, formly overseer of carding, has been promoted to the position of overseer of carding and spinning at the Sanford (N. C.) Cotton Mills.

Eugene C. Bates, 23, was crushed to death in an elevator at the Proximity Mill, Greensboro, N. C., on October 27th.

George K. Tate, formerly superintendent of the McAden Mills, McAdenville, N. C., has been appointed assistant manager of the Gastonia office of the North Carolina State Employment Service. Mr. Tate will be actively in charge of the industrial division and the referrals to the textile industry.

J. Chadbourn Bolles, formerly assistant trust officer of the American Trust Company, Charlotte, N. C., has resigned to become president, general manager and treasurer of the Rufus D. Wilson Company, full fashioned hosiery manufacturers of Burlington, N. C.

E. S. Dunn Made Vice-President of Avondale Mills

Sylacauga, Ala.—At the directors meeting of Avondale Mills, following the annual meeting of stockholders, E. S. Dunn, general superintendent of Avondale Mills, was

(*Continued on Page 28*)

HOUGHTON STANDARD TOPS

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TEXTILE MILL

The present owners of the Neuse Manufacturing Company, Neuse, N. C., a cotton mill and village of 39 houses, located in Wake County, North Carolina, acquired the property about a year ago. The owners are not textile people and have decided to sacrifice it for a quick sale at $35,000.

The machinery, consisting of about 8,000 spindles, 216 looms, dyeing equipment, etc., while not of the most modern type, is considered a bargain at this price which represents only a fraction of replacement cost. Valuable water power from a 400-foot stone masonry dam on the property greatly reduces power costs. This should be a wonderful opportunity for an experienced textile man. Reasonable terms will be given a responsible purchaser. Address "T. M." care Textile Bulletin.

Twenty Years Ago This Month

The following are excerpts from the Textile Bulletin of October 24th and 31st, 1918.

PERSONALS

H. W. Carlisle, from the Opelika, Ala., Cotton Mills, has accepted a position as chief engineer and master mechanic at Indian Head Mills, Cordova, Ala.

George W. Ray has resigned as overseer of spinning at Courtenay Manufacturing Company to accept a similar position with the Victor-Monoghan Company, Greer, S. C.

Wm. P. Vaughn of Greenville, S. C. has succeeded Matt Ousley as Southern Representative of the U. S. Ring Traveler Company.

B. B. Gossett, president and treasurer of Riverside Manufacturing Company and Toxaway Mills, Anderson, S. C., has resigned to accept a commission as captain in the army.

GASTONIA MILLS CLOSED BY INFLUENZA

Gastonia, N. C., Oct. 16, 1918.—At a meeting of all the managers of the 27 cotton mills of this city Monday afternoon, it was unanimously decided to close all of the mills and to remain closed at least until Thursday . . . . The Loray Mill management have transformed the Loray Schoolhouse into a hospital . . . .

MILL NEWS

Greensboro, N. C.—There are now 650 looms in operation at the plant of the Pomona Mills, Inc., an addition of 100 since the last report.

Inman, S. C.—The Inman Mills have installed a new opener, new picker room machinery and 100 new Draper looms and equipped the spinning room with electric fans.

CLINTON STARCHES

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elected to serve also as vice-president of the company.

Mr. Dunn has been continuously in the employ of the Avondale Mills since 1905, when he started in running pickers. In 1916 he was made a spinning room foreman, and in 1922 he was made superintendent of the group of mills at Sylacauga. Three years ago he was made general superintendent of the entire group.

Avondale Mills operate plants in Alabama at Alexander City, Birmingham, Lafayette, Pell City, Stevenson, Sycamore and Sylacauga, with approximately 278,750 spindles and 4,570 looms.

S. A. Moffitt Joins Walker Engineering Co.

S. A. Moffitt, who has served as superintendent of the Imperial Printing & Finishing Company, Bellefront, R. I.; Amoskeag Manufacturing Company, Bleachery and Finishing Plant; and Riverside and Dan River Bleachery and Finishing Plant; and who was associated with A. O. Joslin in starting Rock Hill Printing and Finishing Company, Rock Hill, S. C., is now connected with Walker Engineering Company, Inc., Gastonia, N. C., textile engineers.

Wellington Sears New Handbook Out

The second edition of the Handbook of Industrial Fabrics, published by the Wellington Sears Company, New York, has recently been issued.

This handsome leather bound volume, consisting of more than 700 pages, well illustrated, is probably the most complete and instructive publication of its kind in existence.

R. M. Pindell, of Charlotte Leather Belting Co., Speaks On History of Leather Industry

Charlotte, N. C.—R. M. Pindell, Jr., vice-president and general manager of the Charlotte Leather Belting Company, Charlotte, N. C., was the principal speaker at the meeting of the Charlotte Lions Club on Monday, October 24th.

Mr. Pindell briefly traced the evolution of the leather industry from earliest recorded history up to the present time, stating that articles of leather clothing had been unearthed that were known to be at least 33 centuries old.

Of particular interest was a description of the size of the industry in the United States and the materials that are required in the tanning and finishing of leathers, much of which is used in the textile industry of the South.

"Because the tanning industry has grown to such importance throughout the world, hides and skins have become valuable world commodity. In the United States alone hides and skins tanned annually represent an almost incredible number of animals. Imagine, if you can, a procession of 20 million cattle, 14 million calves, 50 million goats, 35 million sheep, almost 2 million horses, and various numbers of such animals as deer and elk, kangaroos, aligators, lizards, snakes, ostrich, seals and even sharks.

"It would not present a rounded story of the production of leather to fail to mention the tanning materials that are imported from many countries. The far away chromite mines of India contribute their stores and vegetable tanning materials are gathered from the forests of the world. Oak bark, hemlock bark, and chestnut wood are found in many parts of the United States, but there are other sources of tannin which are of great importance. Quebracho comes from the wood of a tree found in the great forests of Argentina and Paraguay. Quebracho is the most important of all the imported tanning materials. Its name is derived from two Spanish words meaning axe-breaker. Obviously this is due to its extreme hardness.

"Other tanning agents must also be brought long distances. Valonia, which is the acorn cup of the Turkish oak comes generally from Asia Minor. Mangrove, bark which is stripped from the Mangrove tree, comes from many tropic island regions of Africa and Asia. Cutch is made from the bark of two species of Mangrove trees that grow in the great tidal swamp of the Philippines and Borneo. Myrobalans are the unripe, prune-like fruit of a tree growing in India. They contain a high percentage of tannin which is used with other extracts in making sole leather or leather for machinery belting. Wattle bark from South Africa, Sumac from Sicily, South America and Virginia, Gambier from a climbing shrub of the Dutch East Indies and China, Divi-Divi from the dried pods of a tree found in Central America, and nut Galls which form on oak leaves in Asia Minor, are all used in the manufacture of different types of leather so that the American tanner literally gathers his supplies from all over the world."

Officials and Directors At Poe Are Re-elected

The stockholders re-elected the directors and officers of the F. W. Poe Manufacturing Company, Greenville, S. C., at the annual meeting recently.

The following officers were re-elected: Earle R. Stall, president; F. W. Symmes, treasurer, and J. B. Doar, Jr., secretary.

New Oil for Rayon Staple

The Borne, Scrymser Company announces a new product, Double "S" (SS) Base oil. A condensation product adaptable to the higher deniers of cut rayon staple. It is used with rayon and combinations, especially wool, where it is necessary to condition with both oil and water at the same time.

Plans for N. C. Cotton Mfrs. Meet Complete

Plans are complete for the 32nd annual meeting of the North Carolina Cotton Manufacturers Association, which will be held at Pinehurst, N. C., November 3rd and 4th, according to Hunter Marshall, secretary of the association.

Thursday, the first day of the meeting, will be devoted to the registration of members and guests and golf matches. The Board of Directors will hold a dinner meeting at 7 p. m.

Featuring Friday morning's session will be an address by S. Clay Williams, chairman of the board, R. J. Reynolds Tobacco Company, on the general theme, "What Helps Business, Helps You"; and a discussion of present day tax problems, led by Hon. Richard E. Thigpen, senior attorney, United States Board of Tax Appeals, Washington, D. C.

Other important matters scheduled for discussion are: The Wage and Hour Law, safety contests among mills, the textile training school for underprivileged boys, industrial relations, traffic and transportation.

The annual banquet will be held Friday evening at 7:45 in the dining room of the Carolina Hotel, headquarters for the convention.

Officers of the North Carolina Cotton Manufacturers Association are: President, A. K. Winget, Albemarle, N. C.; 1st vice-president, J. Harvey White, Graham, N. C.; 2nd vice-president, A. G. Myers, Gastonia, N. C.; secretary-treasurer, Hunter Marshall, Charlotte, N. C.

Spinning Activity for September

Washington.—The Census Bureau reported that the cotton spinning industry operated during September at 72.8 per cent of capacity, on an 80-hour week basis, compared with 76.2 per cent during August this year, and 82.3 per cent during September last year.

Spinning spindles in place September 30 totaled 26,217,258, of which 22,188,618 were active at some time during the month, compared with 26,312,694 and 22,152,526 for August this year, and 26,843,020 and 23,886,948 for September last year.

Active spindle hours for September totaled 6,613,340,779, or an average of 252 hours per spindle in place, compared with 7,374,791,306 and 280 for August this year, and 7,658,339,165 and 285 for September last year.

Spinning spindles in place included: In cotton-growing States, 18,728,390, of which 16,814,794 were active, compared with 18,778,166 and 16,783,514 for August this year, and 18,774,878 and 17,694,270 for September last year; and in New England States, 6,687,996 and 4,757,384, compared with 6,733,456 and 4,755,728 for August this year, and 7,171,786 and 5,546,998 for September last year.

Active spindle hours included: In cotton-growing States, 5,296,608,234, or an average of 283 hours per spindle in place, compared with 5,689,659,507 and 308 for August this year, and 6,184,681,582 and 329 for September last year; and in New England States, 1,169,365,196 and 175, compared with 1,445,904,718 and 215 for August this year, and 1,326,815,802 and 185 for September last year.

Active spindle hours and the average per spindle in place for September, by States, follow:

Alabama, 492,078,175 and 262; Georgia, 992,290,262 and 306; Mississippi, 54,622,908 and 261; North Carolina, 1,313,580,897 and 219; South Carolina, 1,928,316,370 and 337; Tennessee, 192,400,920 and 321; Texas, 80,402,747 and 318; Virginia, 203,485,084 and 322.

New Rates On Cotton Piece Goods Suspended

Washington, D. C.—The Interstate Commerce Commission, on October 24th, suspended application of new individual and joint railroad rates on cotton piece goods from North Carolina and South Carolina to Tennessee and ordered a hearing at Nashville, January 13, 1939 on the proposed rates.

The new rates, which would have gone into effect on the 25th, would have caused a reduction of about 10 per cent on all cotton piece goods shipped from the Carolinas into Tennessee and would have placed them on the same basis as rates in the East for like distances.

Owing to the chaotic condition of the railroad business of the country, the hearing was ordered at Nashville in order to reach a conclusion as to what rate would be equitable.

Textile Institute Picks Southerners

Carolina textile manufacturers will have important offices in the Cotton-Textile Intitute, Inc., in the new year as a result of elections at the annual meeting held in New York recently.

Allen F. Johnson of Greenville, S. C., was elected to the executive committee. Elected to the board of directors were Herman Cone of Greensboro, Stuart W. Cramer of Charlotte, J. Holmes Davis of Wilmington, J. C. Evins of Clifton, S. C., B. B. Gossett of Charlotte, John A. Law of Spartanburg, S. C., K. P. Lewis of West Durham, Fred W. Symmes of Union, S. C., and C. A. Rudisill of Cherryville.

OBITUARY

CHAS. DOBBINS TAYLOR

Charles D. Taylor, 60, of Gaffney, S. C., widely known and highly regarded throughout the Southern textile industry died October 12th in a Charlotte hospital after a short illness.

Funeral services were conducted at the home in Gaffney. Dr. D. A. Howard, pastor of the First Baptist Church, and Dr. R. C. Granberry, president of Limestone College, both of Gaffney, and Dr. R. A. McFarland of Rock Hill were officiating ministers. Interment was in Oakland cemetery.

Mr. Taylor had for 20 years been Southern agent for the National Ring Traveler Company of Providence, R. I., and has been connected with that company for over a quarter of a century.

Besides his wife, Mr. Taylor is survived by one son, L. E. Taylor of Atlanta, Ga., and three daughters, Mrs. F. D. Martin, Miss Edith Taylor and Miss Elizabeth Taylor of Gaffney.

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CHARLOTTE, N. C.

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Should Test Constitutionality

Elmer F. Andrews, the recently appointed Administrator for the Wages and Hours Law, has made a favorable impression upon the textile industry and there is confidence that he will fairly administer the law.

We, however, strongly advise against allowing the above facts to form the basis for a complacent acceptance of the measure and for failure to test its consitutionality.

The Wages and Hours Law, if constitutionally legal, is far more than a wages and hours law and will go down in history as the law which marked the end of the reserved rights of the States and establishment of the domination of Congress over the internal affairs of the people of the States.

Our forefathers realized that with several sovereign States located close to each other, there were some problems and some functions, such as common defense, which should be handled jointly, and that there should be some federation through which there could be joint action.

The Constitution of the United States, as drawn, was nothing more than an agreement between the States whereby there was to be set up an organization which was to handle matters of common interest.

The idea was that the Congress which was to be set up was to be the servant of the sovereign States, and there was never any idea that the States were to become vassals or subordinates of Congress,

The Constitution, as drawn, gave to Congress only certain powers and its framers argued that it would have only the powers designated, but the people of North Carolina and South Carolina and certain other States, refused to ratify the Constitution until it was definitely and positively stated that the States were to handle their own internal affairs without interference by the Congress.

North Carolina, South Carolina and other States refused to the proposed agreement for joint action by the States, that is, the Constitution, until amendments, known as the Bill of Rights, were inserted.

The Amendment which was most greatly in demand and which had to be written into the Constitution before North Carolina, South Carolina, Massachusetts, Rhode Island and New Hampshire would ratify was—

> All powers not delegated to Congress shall be reserved to the several States and to the peoples thereof.

That provision has throughout the years stood as a bulwark against those who sought centralization of power in Washington and has been the real reason why our government has stood the test, and why democracy has prevailed.

Our ancestors realized that in a country which covered such a vast area, there would be divergent interests and divergent ideas and that it would not be well for the people of one section to assume the right to regulate the affairs of the distant States, with whose problems they had no intimate or exact knowledge.

Realizing that time might produce the advisability for some changes in the agreement or Constitution, our fathers inserted a provision for an orderly amendment by the vote of three-fourths of the sovereign States. They thought that the amendments which had been inserted before North Carolina and other States would ratify, would stand as protection against an assumption of power by Congress under the domination of an organized minority.

George Washington in his farewell address gave a warning when he said:

> If, in the opinion of the people, the distribution or modification of the constitutional powers be in any particular wrong, let it be corrected by an amendment in the way which the Constitution designates. But let there be no change by usurpation; for, though this, in one instance, may be the instrument of good, it is the customary weapon by which free governments are destroyed.

When Congress sought to regulate the ages of persons to be employed in industry, by prohibiting interstate commerce in articles manufactured

INSTITUTE FOR RESEARCH IN SOCIAL SCIENCE

by such persons, the United States Supreme Court said:

> Congress can not do by indirection that which it has no power to do directly.

Those who were behind the Wages and Hours Law dared not submit a constitutional amendment to the States but sought usurpation of power and, if this law stands, it is only the beginning of more extended usurpations.

Not only did Congress assume a power which it was known would be refused, if submitted to a vote of the sovereign States, but opposition to the Wages and Hours Law was lulled to sleep through a deliberate misrepresentation of the provisions of the act.

The public and industry were told that the 25 cent minimum was to remain for a definite number of years, and followed by a 30 cent minimum, and that the 40 cent minimum was not to be reached for seven years.

We do not know who conducted the publicity campaign for the backers of the Wages and Hours Law, but its enactment was secured through fraud and misrepresentation and by persons who dared not submit the question of transfer of power to a vote of the States.

Administrator Andrews appears to be fair-minded but if he is too fair, an effort will be made, by advocates of centralization, to remove him.

There may be a temporary minimum wage of 25 cents in some industries but there will be constant pressure upon Congress to raise the figure to 40 cents and Congressmen, in labor union districts, will support any measure favored by labor irrespective of the injury to industry.

President Roosevelt has said that the law was only intended "to put a floor under wages and a ceiling over hours" but if the law stands and the people of the sovereign States are subject to laws made by Congress under the pressure of organized minorities, definite and equal wages will be fixed for all industries irrespective of location or costs of living.

If Congress can fix wages in industry they can also regulate hotels and require them to admit negroes upon an equal footing with whites.

The NRA was declared unconstitutional and it is our belief that the United States Supreme Court will throw out the Wages and Hours Law.

If this law is allowed to stand because of the impression that it will be fairly administered, it will be only the beginning of more complete domination of the peoples of the States by Congress and we pity the South in years to come.

The United States Supreme Court should be brought face to face with the question of nullifying a solemn and binding section of the Constitution which says:

> All powers not delegated to Congress shall be reserved to the several States and to the people thereof.

The Supreme Court should be allowed to put a stamp of approval upon an illegal assumption of power by Congress under the urge of an organized minority.

If the Wages and Hours Law is constitutional, our dual form of Government has passed forever and Congress, which is always under pressure from organized minorities, has been given full and absolute control over the lives of the people of all States.

T. W. O. C. Scores Victory?

With the re-opening of the Dallas Manufacturing Company, of Huntsville, Ala., on October 17th, the Textile Workers Organizing Committee scored a signal victory (?) for the workers of that mill.

Among the numerous advantages gained for the workers by T. W. O. C. was an 11 per cent reduction of wages and complete acceptance of the Loper engineering report, which provides for the elimination of approximately 125 employees. The operatives will be called back to their positions according to departmental seniority, without regard for union membership, and will be selected from those listed on the payroll of last October.

The Dallas Mill is running again on the same terms that it would have been willing and desired to continue running for the past year. The terms agreed upon were necessary for the continued operation of the mill, as attested to by the Loper report, and verified by engineers of the Department of Labor.

It seems incredible that intelligent textile workers of Huntsville, Ala. could sign away their rights and liberties to such irresponsible and selfish interests as the T. W. O. C. organizers have proved to be.

These organizers in an effort to obtain contracts which would establish them as the sole dues collecting agency for a large group of textile workers, have almost wrecked what was formerly one of the finest industrial centers of the South.

The employees have lost half a million dollars in wages, the merchants and professional men have lost a large volume of business and neither have a single thing to show for such losses.

Mill News

Thomaston, Ga.—The Peerless Cotton Mill is placing 75,000 square feet of new roofing on its building.

Rockingham, N. C.—The Pee Dee Manufacturing Company has just received a government order for $28,840 worth of cotton drill, delivery to be made by December 27th.

Cramerton, N. C.—Cramerton Mills have received a contract to deliver to the government cotton cloth valued at $15,964. Delivery is to be made by February 2nd.

Mooresville, N. C.—Work is going forward on a revamping program in the opening and picking departments of the No. 3 plant of the Mooresville Cotton Mills. The company is changing to hte Saco-Lowell blending reserve system.

New Port, Tenn.—Manager M. J. Holbrook of the Newport Hosiery Mill, which has discontinued operations for the time being, announces that the mill will be put into operations again soon after the first of the year.

Before the mill reopens, 65 new machines are to be installed, Mr. Holbrook stated.

Easley, S. C.—An announcement from the Chamber of Commerce of Easley on October 28th indicated that the proposed hosiery mill for there was practically assured.

The proposed plant would require a two acre plot. Most of the labor would be drawn from the immediate vicinity of Easley.

Green Cove Springs, Fla.—R. L. Tilley has announced that the Clay County Products Company will begin the manufacture of silk hosiery here about December 1st. Mr. Tilley, who is chairman of the board of the new industry, states that the new company has been financed by Green Cove Springs citizens and will have an annual production of between 90,000 and 100,000 pairs of silk hose.

Mount Holly, N. C.—Carolina Process Company is Mount Holly's newest industrial organization. This concern is successor to Carolina Dyeing and Winding, Inc. Officers of the new corporation are R. C. Anderson, president and treasurer; W. P. Rhodes, secretary, and R. L. Crump, superintendent. The new organization will do commercial processing of all types of yarns.

Greenville, S. C.—A charter has been granted to Davis Full Fashioned Hosiery Mills, Inc., of Greenville, to manufacture and sell hosiery, underwear and all kinds of knit goods. Authorized capital stock is $200,00, with stock amounting to $300 subscribed by W. R. Davis, E. S. W. Dameron and Claiborne Young, all of Burlington, N. C.

Hickory, *N. C.*—At the Hafer Hosiery Mills an addition has been completed on Valley Street. This company is engaged in the manufacture of 200 and 300-needle plain and fancy hose, using 70 circular knitting machines.

West Gastonia, N. C.—The 790 dwellings in the mill village of the Firestone Cotton Mills, Inc., are all being remodeled. This includes the repainting and making any necessary repairs. All of these are expected to be in excellent condition by the end of the fall season.

Greenwood, S. C.—A new business enterprise for Greenwood is the B-M Apparel Manufacturing Company for the manufacture of men's underwear and other items for department stores and haberdashery trade, according to an announcement by G. Roy Barksdale, who will serve as president and treasurer with H. C. McKemie as vice president and manager.

Manager McKemie said when the plant is in full production it will employ about 100 workers.

Columbus, Ga.—Plans for establishing a silk plant here within six months were outlined recently following filing of a petition for incorporation of the Shannon Hosiery Mills, Inc.

The company is to be capitalized at $1,000,000, of which $25,000 already has been paid in, the petitioners announced. Capital is being furnished locally.

The new enterprise, one of the first of such extensive scale to be projected here in nearly eight years, plans to manufacture silk hosiery, underwear and other articles of silk, wool, cotton and linen.

The petitioners are Norman S. Ilges, Jr., C. J. Swift, D. A. Turner, George J. Golden and F. Edward Lummus.

John Ilges said the plant is to be located on a six-acre tract now owned by the promoters about two blocks east of the Jordan City section on the Warm Springs Road.

Brookford, N. C.—J. F. Boyd, head of the Boyd and Goforth Construction Company, of Charlotte, N. C., announced that his firm had been awarded contract for construction of a hydroelectric plant at the Brookford Mills at Brookford, N. C., near Hickory.

The new plant will include housing for various equipment, installation of turbines, and other construction activity incident to erection of a complete hydroelectric power station.

The new unit will furnish power for the Brookford Mills, and the mills' village. Engineers for the project will be Robert and Company of Atlanta, Ga.

Enka, N. C.—The American Enka Corporation has announced plans for the construction of a new addition to the plant which will be used for a bleachery. The construction will be under the supervision of Potter & Shackleford of Greenville, S. C. It is understood that the construction program and the new equipment will represent a cost of approximately $40,000.

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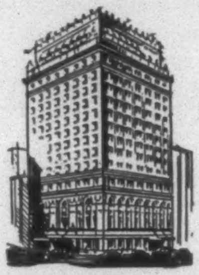

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Mill News

ROME, GA.—The Strain Manufacturing Company, manufacturers of single and double fill duck, will be sold at public auction on Tuesday, November 1st, at the Floyd County Courthouse to the highest bidder, it has been announced here. This is one of the oldest textile mills in this section of Georgia.

The Strain Manufacturing Company, which was formerly known as the Floyd Cotton Mills, includes the mill building, which is a two-story brick structure, and all machinery, one store house, two warehouses, eighteen dwellings for the operatives and several lots.

LINCOLNTON, N. C.—R. S. Abernathy and wife, of Winter Haven, Fla., have sold to C. L. Chandler of Gaffney, S. C., and J. A. Moretz of Hickory, N. C., the Wampum Cotton Mill (also known as Thread Spinners, Inc.) of this place which has been inactive for the past several months.

The sale transfers all the property of the Wampum Mill including building, machinery, tenant houses and several acres of land. The late J. A. Abernathy, Sr., established the Wampum Mill in 1904, and operated it along with his sons until during the war, when it was sold. Since that time the mill has changed ownership several times and has run intermittently during the interim.

CHARLESTON, S. C.—Government competition and the wages and hour law, coupled with a short cotton crop, have caused the American Manufacturing Company to shut down its Charleston bagging mill, it was announced by S. E. Stauffer, manager.

More than 400 employees will be laid off for an indefinite period and the machinery will stand idle until conditions change.

The big Charleston bagging manufacturing mill will be experiencing the first general shutdown within the memory of veteran employees, certainly the first in 25 years.

CALHOUN, GA.—Work has begun here on a $30,000 bedspread factory which will house three companies, two of which are headed by Dr. J. H. Boston. The two-story building, he said, will make it possible to combine the activities of all three companies and take care of an enlarged manufacturing program.

WOODRUFF, *S. C.*—A $25,000 grammar school building has been completed at Mills Mill No. 2 here. The building has seven class rooms, an auditorium with seating capacity of 500 and four storage rooms.

ALEXANDER, CITY, ALA.—Work will be pushed forward as rapidly as possible at the Russell Manufacturing Company, on the installation of new spinning equipment. The company recently placed the order with the Saco-Lowell Shops to change 40,000 spindles to long draft.

GREENVILLE, S. C.—Brandon Corporation, cotton goods, reports for the year to August 31, 1938, a net loss of $319,456, after all charges including depreciation, as compared with a net profit of $450,943 in the preceding fiscal period.

DALTON, *Ga.*—John Sansom, J. A. Corneilson and Herbert Rogers have organized a new company here for manufacturing and distributing machine-made and hand-made bedspreads, novelties, wearing apparel, mats and other textiles and will begin operations this month, employing around a hundred people.

The new company has filed application for a charter and will have a capital stock of $20,000. The plant will be located on Thornton Avenue and will begin operations as soon as machinery can be installed.

GREENSBORO, N. C.—Southern Webbing Mills at Greensboro, N. C., is now proceeding with a plan of expansion and production increase, officials have announced.

L. W. Joyce, founder (in1924) and president, announced details of the plan as "reflecting better and more normal business conditions." Concurrent with launching the program, he announced several personnel changes. Mr. Joyce will head a new sales organization in the East, which is being created to handle sales of present production and new articles the plant will produce. Later, he will have New York headquarters.

Carter Dalton has been elected president, succeeding Mr. Joyce. He has been a director and interested in the mills from the beginning. John T. Kilpatrick, previously in charge of production and district sales, has been made vice president, treasurer and general manager. Adam Clement, who recently moved to Greensboro, N. C., and who for the past two years has been located in Chicago as the mills' district manager there, has been made sales manager. F. L. Suttles, for several years auditor and office manager, has been made secretary.

BESSEMER CITY, N. C.—Work is now under way at the local unit of the American Mill on remodeling a building in the mill village which will be used for a community house for the operatives of this mill and their families. Sam R. Goldberg, secretary and treasurer of the Algodon Manufacturing Company, a unit of the company, has the work under his supervision. The house will be furnished throughout by the young men and girls of the village, who desire to make it as attractive as possible.

SEVIERVILLE, TENN.—The Argus Hosiery Mills have been established at this city for the manufacture of full-fashioned hosiery.

JACKSONVILLE, FLA.—The Southern Hosiery Company, Inc., has been incorporated by A. C. Thompson and F. D. Wheeler.

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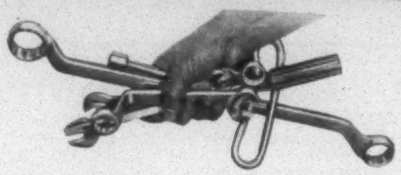

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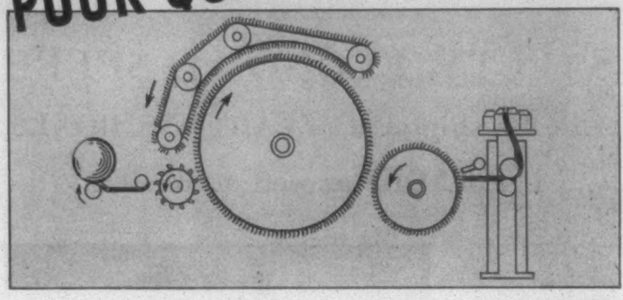

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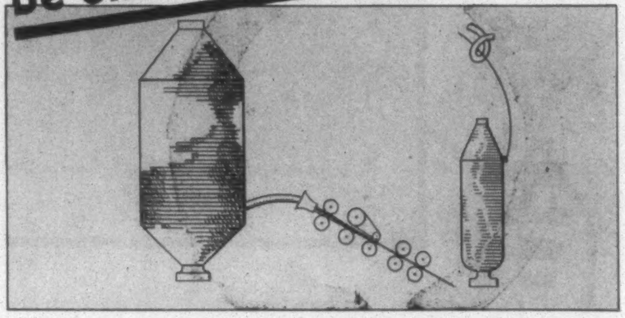

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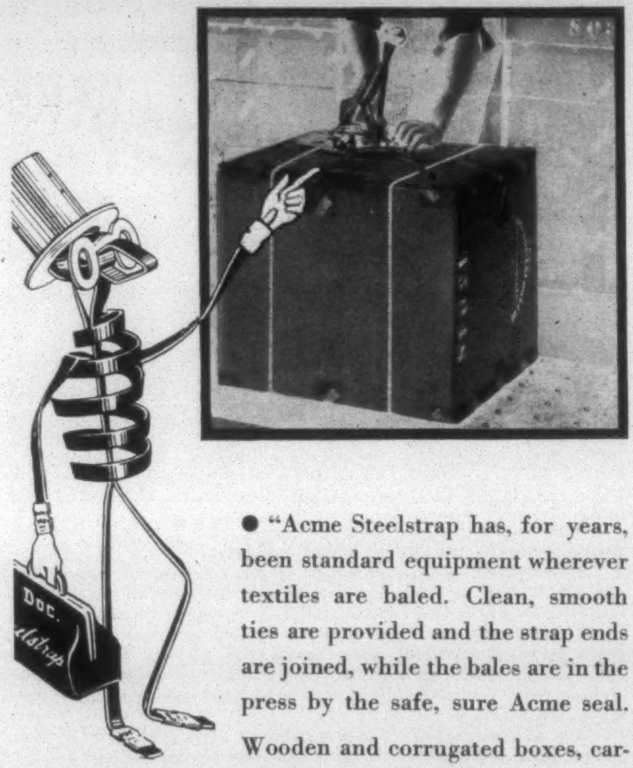

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Some Information on Loom Upkeep

(*Continued from Page 16*)

determine whether the shuttle has given proper service or whether a legitimate accident rendered it unfit for use. I believe that the second hand should check the loom to which a new shuttle has been applied to see whether the work was done right and see if the shuttle is properly centered, the picker properly paralleled, and the power properly adjusted. For it is this kind of supervision that contributes so much towards the upkeep of looms, as by taking care of these so-called "trifles," you forestall many other corrections, which if neglected, would result in a major repair job or a run down section of looms.

Under the title of "Loom Upkeep" comes the loom fixers schools or classes. A great many mills have inaugurated this system, and I believe that it is one of the best things that has happened in connection with weaving. Some conduct the classes by aid of a special instructor for all students, but in many instances the instruction is given by the second hands of the off-shift. That is, the second hand of the first shift will give instructions for and hour or so during the second shift, and vice versa. No matter what method is followed, the loom fixing classes do a great deal of good, as they get boys to thinking and feeling free to offer suggestions for discussion among the fellows in class.

Lubrication is one of the more important observances in the upkeep of looms, and for this reason all of the "X" family of looms are equipped with the pressure system of lubrication, and all of the bearings are equipped with fittings at the correct angle for easy access with a grease gun. It is important that a good grade of grease be used so as to avoid the clogging up of the grooves in the bearings. A poor grade of grease merely defeats its own purpose.

Let us now leave the "X" Model loom, which, as I said in the beginning, have not had time to become run down, and consider older models, such as "E", "K", and "L". These did not have the advantage of improved lubricating methods. They did not have the improved attachments, as is the case with modern machinery, and possibly were not built with the precision of today, so that in many instances these old models are already run down. Before we can consider loom upkeep on looms of this kind, we must first build them up.

Many mills have taken advantage of an institution conducted by the Draper Corporation called a "Loom Clinic," and it works in this manner: A Draper representative will come to your mill and inspect a block of old looms that are sadly in need of repair. He will select one, two, or more looms, if necessary, that fairly represent the condition of the whole. He will then dismantle the looms by removing all bearings and worn parts. Then you are free to decide which of the parts should be replaced in order to put the back into first-class shape. A list of these parts is made up and a quotation made on the cost so that you may figure in advance what it would cost you to put the whole block of looms back into good running order.

Thus, it seems to me that the main factors in loom upkeep are:

A more general use of gauges.

A closer scrutiny of shuttles.

A systematic method of instruction for learners, and older hands, if necessary.

And the proper method of lubrication.

Classified Department

WANTED—Position as designer or assistant designer. Age 26. Two years' experience as assistant designer on fancy shirting and rayon crepe. Experienced as dobby loom fixer on C. & K., jacquard weaver and tie-up man and Draper overhauler. Best of references. Address "Ben," care Textile Bulletin.

WANTED—Position as cloth room overseer. 30 years of age. Experienced on all grades of cloth from sheeting to highest class broadcloth and fancies. Best of references as to character and ability. Address "Dun," care Textile Bulletin.

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Discussion On Carding and Spinning

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How To Distinguish New Cotton Crop From Old

Chairman: We will go on to the last question: *"How can we distinguish the new crop of cotton from old inferior and Western cotton of different characteristics?"* We have talked about the sorry cotton we had last year. How can we tell this coming year when we get some of that cotton instead of the new crop? Or how are we going to tell when we get this Western cotton that has characteristics so different from the Delta cotton that it will not dye properly? We shall get some of that, because there was right much of it left over. How can we tell it? If we do not find out some way to distinguish it, we are going to get stuck. Has there been any way developed by anyone to tell what we are getting?

Mr. Winget: As a matter of fact, this last year didn't they ship a lot of that Western cotton in and call it Delta cotton?

Chairman Dilling: Yes, they did that.

Mr. Winget: It looks as if we ought to have a purge of cotton shippers.

Mr. Dilling: Right many mills got in trouble last year because of that. Western cotton will not process properly when mixed with Delta cotton. I made some tests a few years ago for the Department of Agriculture, and in making the tests I put the cotton in the oven. When we got the temperature up to two hundred degrees, the Western cotton turned yellow. We found every bit of that Western cotton would turn extremely yellow, while Delta or Carolina cotton would not turn yellow unless you burned it, unless you put so much heat in there that you scorched it. So the Western has a different characteristic in that respect. Last year, when so much of it was sold as Delta cotton, it was found it would not dye uniformly. Probably it would spin just as well, but when the customers got it and tried to dye it it would not dye evenly, and they turned it back on the mill.

Mr. Winget: There is not enough difference in the color to distinguish it by the naked eye, is there?

Mr. Dilling: No.

Mr. Winget: Of course, in the cotton itself it is so much whiter that you can tell it, but after it is spun and gets a hard twist you can not tell it.

Chairman Dilling: The Federal Trade Commission, of course, may be able to do something about it.

S. M. Cauble: A certain broker sold some of us that cotton, and we did not know the difference. We had intended getting some and making a test. The way we found out we had it was that it happened we were talking to a broker and told him what pretty cotton we had. He said, "You have some California cotton." We went back

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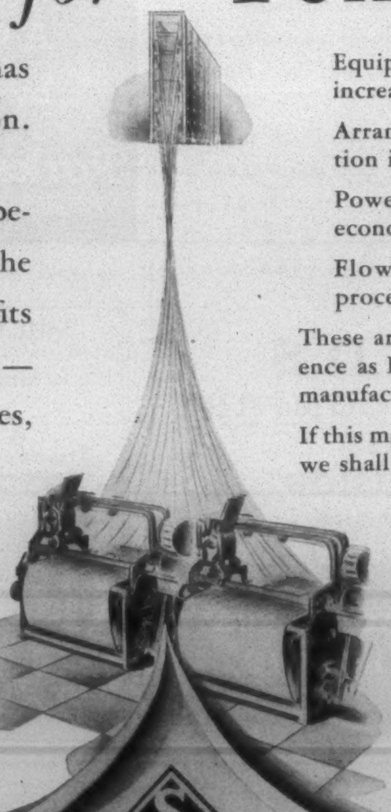

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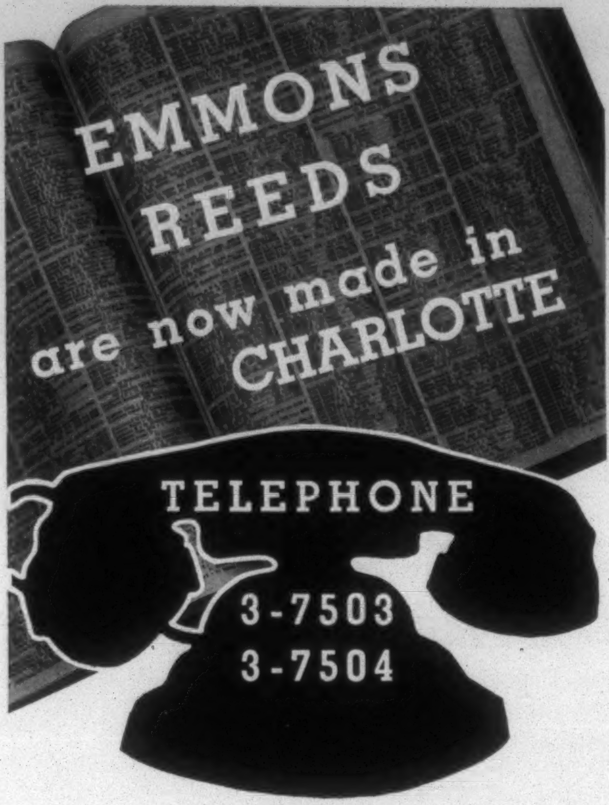

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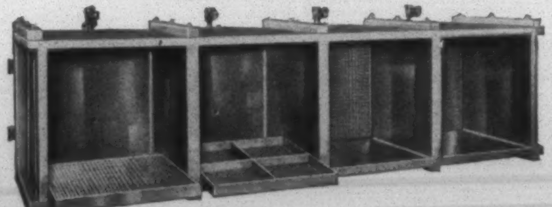

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MASTER MECHANICS' SECTION

Pointers On The

Proper Selection of Coal

For Existing Stoker Equipment

By Morgan B. Smith

Dean, Lawrence Inst. Technology

Detroit, Michigan

This is a continuation of the article on selection of coals that was started in the issue of October 1st, in which the writer covered the principal factors in coal selection, types of stokers, characteristics of coals, etc.

The Method

We start with the coal, comparing its known properties with the known characteristics of the steam plant and its load. The whole idea is still in a formative state but has been advanced to a point where we can list certain coals in several districts which we know will operate well over a wide range of steam plant equipment and load conditions.

1. Low-volatile, high grade bituminous coals. 16-22% volatile, 68-77% fixed carbon, 3-10% ash (minimum of 6% preferred), 2-6% moisture, 41,200 to 15,000 B. t. u. per lb. dry coal. Heavy-caking, slow burning coals found in Pennsylvania, West Virginia and Virginia, mainly Short flame burning coals.

If the following conditions pertain to the steam plant in question these coals may be considered for trial.

a. Agitation of the fuel bed is provided by stoker action.

b. High air pressure and volume under-fire is provided for combustion purposes and to cool stoker parts exposed to undue temperatures during peak load burning conditions.

c. Moderate amount of furnace wall cooling; if the amount of wall cooling is too great ignition of such coals may be lost.

d. A comparatively small, low furnace under the boiler.

e. The boiler is set comparatively low over the fuel bed.

f. Boiler passes are somewhat restricted, compared with modern practice.

g. Comparatively steady load with peaks at regular intervals. Absence of unpredictable peak loads, especially if sudden. These coals require time to meet peak load burning rates.

h. Somewhat longer fuel travel than is needed with free-burning coals to assure satisfactory combustion before dumping.

i. Highest grade furnace refractories possessing marked resistance to slagging action at peak load burning rates. These coals generate an enormous amount of heat when forced.

2. High-volatile, high-grade bituminous coals. Often grouped under the general name of "Pittsburgh" type coals. A generic term. 30-38% volatile, 50-60% fixed carbon, 5-12% ash (minimum of 6% preferred), 3-10% moisture, 13,200-14,000 B. t. u. per lb. dry coal.

May be considered for trial if the following conditions permain to the steam plant in question:

a. Agitation of the fuel bed is provided by stoker action.

b. High air pressure available under-fire to meet peak load burning rates and to cool stoker parts exposed to unduly high temperatures.

c. Large furnace volume, with height greater than depth.

d. Boiler is set high above the fuel bed increasing the furnace volume. Affording time for completion of combustion.

e. Combustion arches are absent.

f. The amount of furnace wall cooling is moderate or large. Can use more cooling than is the case with low-volatile, slow burning coals.

g. Large open boiler passes, especially and first past which is virtually a continuation of the boiler furnace. (There is of course a limit in this regard, sufficient restriction being necessary in the boiler passes to maintain gas turbulency and velocity.)

h. Load characteristics somewhat erratic, or, peaked at regular intervals. These coals respond very quickly to sudden load demands.

i. The time of fuel travel from feed to dump must be ample to assure satisfactory combustion, i.e., minimum loss of combustible to the ash pit.

j. The stoker should provide a fuel bed which is heavy at the feed, gradually sloping downwards toward the dump plates. With a fuel bed of this contour high-volatile content of the coals is distilled off more rapidly and is ignited over the thinner and hotter parts of the fuel bed.

3. Non-caking, free-burning bituminous coals. These coals vary widely in analysis but possess similar burning characteristics. Found mainly in Illinois, Indiana and Missouri. 28-36% volatile, 38-53% fixed carbon, 8-20% ash, 8-18% moisture, 11,000 to 12,500 B. t. u. per lb. dry coal.

Note: Some Indiana coals possess caking properties; they behave more like the "Pittsburgh" coals.

These non-caking, free-burning coals may be considered for trial if the following conditions pertain to the steam plant in question.

a. Moderate agitation of the fuel bed by stoker action.

b. Ignition arches are absent.

c. Means for disposal of refuse (clinkers, etc.) must be adequate for peak load burning conditions.

d. Means for furnace wall cooling at the clinker line. Water boxes or other means are advisable, especially if high boiler ratings must be carried.

e. Moderately high air pressure and volume underfire for combustion purposes and for cooling stoker parts exposed to unduly high temperatures under peak load burning conditions.

f. Furnace wall cooling means are present. These coals burn so freely that there seems to be no limit to the amount of wall cooling installed insofar as possible loss of fuel ignition is concerned.

g. Large, high furnace with high-set boiler.

h. Boiler passes little restricted, especially the first boiler pass which should be virtually a continuation of the boiler furnace.

i. Sufficiently long fuel travel, i. e., time, from feed to dump plates to insure complete distillation of volatile matter and moisture, and to complete fuel combustion.

j. Ignition arches absent.

k. The load may be steady or peaked at regular intervals; it may be erratic with unpredictable peaks. These coals respond quickly to sudden changes in load.

4. Semi-free-burning, high-grade Southern coals. Found in Kentucky, Tennessee and Alabama. 30-37% volatile, 50-60% fixed carbon, 5-15% ash, 2-5% moisture, 13,000 to 13,500 B. t. u. per lb. dry coal. Can be used satisfactorily if the following conditions pertain to the given steam plant.

a. Moderate amount of fuel bed agitation provided by the stoker.

b. Large furnace, height greater than depth.

c. Boiler set high above the fuel bed.

d. Boiler passes comparatively unrestricted, especially the first boiler pass which should be virtually a continuation of the furnace.

e. Absence of ignition arches.

f. The load may be variable, peaked at regular intervals or at unpredictable times. These coals respond quickly to load changes.

g. High air pressure and volume should be available for combustion and stoker cooling during peak load conditions.

Coal Preparation

In this case we are interested in the sizing of coal for the given steam plant with under-feed stokers.

In many instances stokers perform best with carefully sized coal. The same stokers may behave badly with poorly sized coal, especially coals containing too high a percentage of slack.

The writer knows no way to predetermine a coal size mixture for a given stoker installation, other than to base it upon the load characteristics of the given steam plant. Trial of different mixtures is by far the best method whereby the most suitable sizing may be determined.

In a broad way we may say that with steady loads, even with regular peak periods, a comparatively large percentage of slack can be used satisfactorily. But, if the load is erratic, especially with peaks coming at unpredictable periods, a large percentage of slack is a decided detriment. In the latter case we have often recommended the use of coal containing not over 10% slack with the balance nut sized or larger (1¼-inch maximum).

In many instances coals have been condemned for given steam plants when the only fault lay in the size preparation of the coals. It is often highly economical to pay a little more for properly sized coal than to pay less for coal which will not work well in the given steam plant.

Ash Softening Temperatures

Haslam & Russell, in "Fuels and Their Combustion" (McGraw-Hill Company), have classified coals with respect to their ash softening temperatures, as follows:

Class 1—2600 to 3100° F. highly refractory ash. Anthracite and some bituminous coals.

Class 2—2200 to 2600° F. medium fusibility. Pennsylvania bituminous coals and some in central West Virginia.

Class 3—1900 to 2200° F. easily fusible. Lower grades of bituminous coals and the lignites.

This characteristic of all coals is highly important, especially in coals to be used in steam plants operated at high boiler ratings.

Clinker formation and slagging of refractories depend largely on this coal characteristic.

The U. S. Bureau of Mines has collected valuable data in Bulletin No. 209, etc. Lionel S. Marks, Harvard University, has done a lot of valuable work on the clinkering of coal.

Reprinted from the proceedings of Fuel Engineers' Meeting, by courtesy of Appalachian Coals, Inc.

Open Forum For Master Mechanics

Job Cost System for Master Mechanic

Editor:

I think the idea of a page or two just for master mechanics is a good one, and I do have something that I'd like to get some information on.

I'd like for someone who has to do it, to give me some dope on finding how much of the shop cost should go to each department. The manager tells me that it is being split up by guess work now, and that he wants to find out just how much should be going to each department.

If there is some system without a lot of red tape, and so I wouldn't have to put on a man just to do that, I'd like to know about it. If you get anything on this, will you please let me know just as soon as possible.

Contributor No. 1.

Reply

Editor:

There is a fairly simple system that Contributor No. 1 can use to get his shop cost into the proper department, without having to put on an extra man unless he has a very large shop.

Have tags, similiar to shipping tags but larger, printed, and distribute a supply of them to each overseer. On these tags should be space for information such as job number, date, job required, shop man's name, time of start of job, time job finished, and materials used. The overseer would attach one of these cards to each job sent to the shop, and keep a duplicate record in his department. An example of the way this would work is as follows:

A cylinder screen goes bad on one of the pickers in the card room. The picker fixer goes to the overseer's office, makes out a card showing the date, job number, job required (this would probably read "Repair picker screen"), and would enter this information on the overseer's record book or get the overseer to enter it. The record book is merely for checking purposes, to see that the shop does not mark up jobs to the wrong department. Then the tag would be attached to the screen and it would be taken to the shop.

The shop man who re-covers this screen, marks his name and the time the job was started on the tag. When the job is completed, he marks the time, total time elapsed, and his rate of pay, plus the materials he used on the job, which in this case would probably be screen wire and solder, so much of each. Then he drops the card into a file prepared for the card room jobs and is through with it.

At the end of the day, the shop foreman, or someone designated for the task, collects all the tags for each department. From these tags it is fairly simple to multiply the time of each job by the rate of pay of the man working on the job to get the labor cost. Costs of materials takes a little more work, but the master mechanic should be able to arrive at this fairly closely without a great deal of work. If an exact cost of materials is required it will take more time but can be done with accuracy.

The totals of the cost of labor and materials for each department for each day, or week if preferred, can then be entered on a ledger in the shop, and totalled for the week or month. In this way almost the exact share actually used can be asigned to each department.

To go a little further on this, it is possible for the master mechanic to build up, over a period of time, approximate costs for all the standard jobs, such as making studs or gears, re-clothing screens, repairing cylinders, etc. It will enable him to better judge whether it is cheaper to repair a part or replace it with a new one, and will enable him to keep a better check on the efficiency of his men on particular jobs.

Such a system of keeping records of each job is well worth the additional trouble, and in a large shop it should pay for itself even if it is necessary to put on an extra man to work on these records.

Contributor No. 7.

Repairing of Broken Parts

Editor:

As per your request, I would like to see some discussion as to who is the proper person to pass on the advisability of repairing broken or worn parts. Should the overseer simply send a part down to the shop to be repaired and depend on the shop crew to do it, or should he consult with the master mechanic before the work is done. Naturally, I realize that much of the work that comes to the shop can be handled in this way, but there are cases when it might be cheaper to replace the part than to repair it. Who would have the final say on this?

Also, should all jobs be taken in the order that they are brought to the shop? We know that most repair jobs sent in by the overseer are rush jobs, according to them. I'd like to hear from some master mechanics on how they handle this problem.

Contributor No. 3.

Reply

Editor:

Contributor No. 3 has brought up a question that has been argued pro and con for many years, and is probably done in as many different ways as there are at the present time.

There are almost an unlimited number of factors that would enter into such a problem, depending on the size of the mill, size of the shop, availability of supplies, capabilities of the shop and foremen, budgets, etc.

Many overseers are not fomiliar enough with repairing machinery to competently pass on whether or not a broken part should be repaired or thrown out. At the same time, many very competent master mechanics are not familiar enough with the workings of a particular machine to know if a welded or repaired part will work satisfactorily.

Generally speaking, repair should be made when a considerable saving can be shown over the cost of a new part. Few parts can be repaired to be as good as new. They should be made only with the advice of someone who is thoroughly familiar with the workings of the machine, whether it be the overseer, second hand, fixer or mechanic, taking into consideration the element of cost.

As for the order of working on jobs brought to the shop, the master mechanic should be the man to decide on which job should be done first. He should be familiar enough with the workings of the mill to know which machines are most important to production, and work for these machines should have priority. A slasher job would certainly come before a job on a single loom, or an opener room job over a spinning frame. This is one thing that cannot be properly handled at the suggestion of the overseer, because the overseer is concerned primarily with his own department, to the exclusion of others, while it is the job of the master mechanic to attempt to keep the whole mill running to the best advantage. I would say that the order of jobs worked on should be left entirely up to the master mechanic. Contributor No. 6.

Choker On Squirrel Cage Motor

Editor:

I would like to get some information on the meaning of a "Choker" on squirrel cage motors. I happened to hear this in a conversation that I could not get into, and have been wondering about it since. I am not particularly interested in it from the standpoint of my mill, but would like to know for my own information.

Contributor No. 4.

Wants Information On Motors

Editor:

I am interested in getting some information and others' views on electric motors throughout the mill. Just how near to the rated capacity of the motor should it be operated? I know that in most mills, some motors will be running only about fifty per cent of their ratings, while others will be running up to around one hundred per cent. Just where is the most efficient point to operate them?

How often should motors be cleaned, and what is the best method of cleaning them, particularly on motors located in the top of the mill. Should they be blown out with a high pressure air gun? What is a good method of keeping a uniform oil supply in the motors?

Contributor No. 11.

End of Master Mechanics' Section

S. C. Carders and Spinners Discuss Rayon Staple At S. T. A. Meeting

(*Continued from Page 20*)

extra licker-in. That's about as far as I got with it, but I believe some of these fellows are going to work it out, and get along with it, but the evening up is the biggest thing to consider.

Chairman Stutts: Is Joe Cobb in the room?

Joe Cobb: Yes, sir. They had a hopper directly behind the cards, as Mr. Brannon spoke of, but the trouble with that hopper direct behind the cards is that your licker-in has to do too much opening, and you would have to have another licker-in. On top of that, even if you could put your hopper behind your cards, you have got to have an awful lot of hand feeding of the hopper. Up to date, they have not found the answer to the problem, but it can be done, for there is practically no cleaning to be done. All you want to do is to get your rayon in the form of a lap, but, as I say, they haven't got the answers to all of these problems yet.

Chairman Stutts: Mr. Lyons, I konw that your mill is one of the most up to date mills in South Carolina, and you switched to rayon. What change did you have to make from your previous set-up?

Mr. Lyons: We went around to several mills before we started on it, and everything we found out didn't do us any good. It looks like it is a kind of individual matter with each mill as to set-up. If anybody is going on it, set your pickers where you won't take out anything more than you have to, and watch your cards, and your grate bars, and get started off right, you won't have any particular trouble.

Chairman Stutts: You have long draft spinning?

Mr. Lyons: Yes.

Chairman Stutts: Do you run it two process roving, slubbers and intermediates? And do you have single or double roving?

Mr. Lyons: Double roving on spinning. We didn't have much trouble with it on single roving.

Chairman Stutts: Your long draft spinning took care of that?

Mr. Lyons: Yes. 1½-inch rayon—you open it up the same as you would your cotton staple.

Chairman Stutts: I have heard of these enormous front roll speeds obtained. What numbers of yarn are you making and at what speeds do you run your front rolls?

Mr. Lyons: We are on 30s yarn and we run 148.

Chairman Stutts: Mr. Jones, from Riverdale, what has been your trouble with rayon and how did you work it out?

Mr. Jones: The biggest trouble we had to begin with was just starting in. As Mr. Crow and Mr. Cobb have told you, there are several things you have got to slow down besides the beaters. You have got to slow your apron speeds down, slow your apron down. It goes in there in such compact form that it beats it up. We closed up our grate bars. We carried it on through the cards, about 9 pounds an hour, and didn't have any great big trouble on the cards any more than just mechanical trouble.

On this particular rayon we are using, the viscose type, it seems to be kind of a little bit different from the Italian type. If I was going to try again to begin, I believe I would buy the viscose type. I have had some experience with both types.

We had to make little adjustments. All of these rayon manufacturers will furnish instructions as to how to set up to run it. That is something to go by. It will give you a starting point.

We found by opening our drawing ⅛ inch wider, we got better results. It runs good all the way through. We do not have any trouble with it lapping up anywhere except on the slubbers. By the way, we put new rolls on the slubbers. They seemed to be a little rough, but after we ran a doff or two on those, after putting on those new rolls, we didn't have any more trouble.

I had rather run rayon any time than lint cotton. I have never had any experience with Japanese rayon.

Chairman Stutts: Mr. Crow, on your pickers, do you have any trouble with the removal of the lap from the pickers?

Mr. Crow: We had trouble until we did what Mr. Brannon said there, tapered the pin. After that we didn't have any trouble.

Chairman Stutts: Are there any further questions to come up on rayon?

Member: We didn't taper our lap. We use a cloth top on our lap.

Chairman Stutts: As you pull the pin out the cloth top remained, and that let the lap stick in there?

Reply: Yes.

Chairman Stutts: You had to have a supply of those for your laps?

Reply: Yes.

Chairman Stutts: After you took them off, if they were going to be taken directly to the cards, would you wrap a piece of paper around them?

Reply: No. If they were to sit over night, I would wrap a piece of paper around them. If I was going to use them right then, I would not wrap them.

Due to shortage of space, it is not possible to report the entire proceedings of this meeting in this issue. The remainder will appear in the issue of November VE.

O. L. Hope Gets Patent On Card Grinding Machine

A textile patent of general application has been granted to O. L. Hope of Gastonia, N. C., on grinding means for the card flats of a cardind machine. The flats as heretofore ground had no support for the central portion and this was said to result in improper grinding. Mr. Hope devised a structure for supporting not only the ends of the flats, but also the middle portion of the flats, whereby better grinding of the flats is effected.

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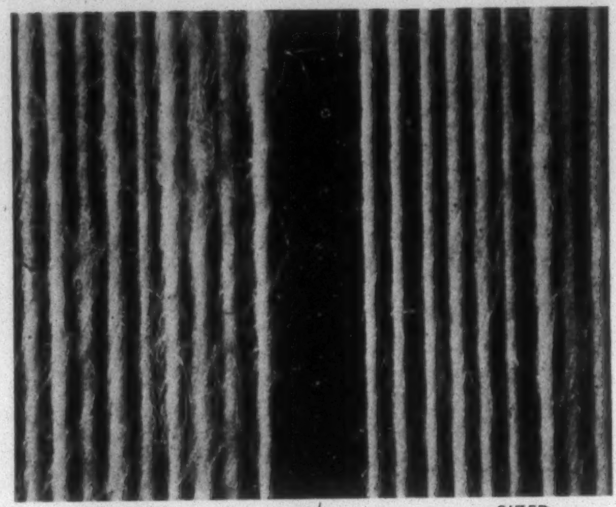

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Discussion On Carding and Spinning

(*Continued from Page 39*)

and talked to the broker, and he said yes, through a mistake of his office girl we had gotten California cotton. He said if we had any come back on us he would make it good. I had it practically all spun, but I did not let him know it. We did not get any complaints from it, but I did not get as good breaking strength on it. It seemed to be dead. Then the same broker told me that they were still selling cotton from the 1931 crop.

Chairman: I wonder when we shall ever get rid of the 1937 crop. 1931 was that other bad year.

Mr. Culpepper: Could that be due to a difference in the chemical content of the cotton?

Mr. Winget: Yes.

Mr. Culpepper: Would it be possible to have a test made of the chemical content of the cotton?

Mr. Winget: That would be possible, but would it be practicable? The average mill does not have facilities for doing that. You assume that you are getting the same cotton as you have been getting. The cotton buyer, the grader, and others tell you that you are getting the same thing. Sometimes, also, you buy so closely that you buy today and use tomorrow and do not have time for such tests. Then some other things enter into it, like immature fibers. You remember Mr. Williams spoke of that with regard to the 1937 crop. I remember just a few days ago looking at some cotton, and in the center was a streak of black. That was an immature fiber.

Mr. Royal: Mr. Dilling, didn't you say that all this Western cotton you tested in the oven turned yellow at two hundred degrees?

Mr. Dilling: Yes.

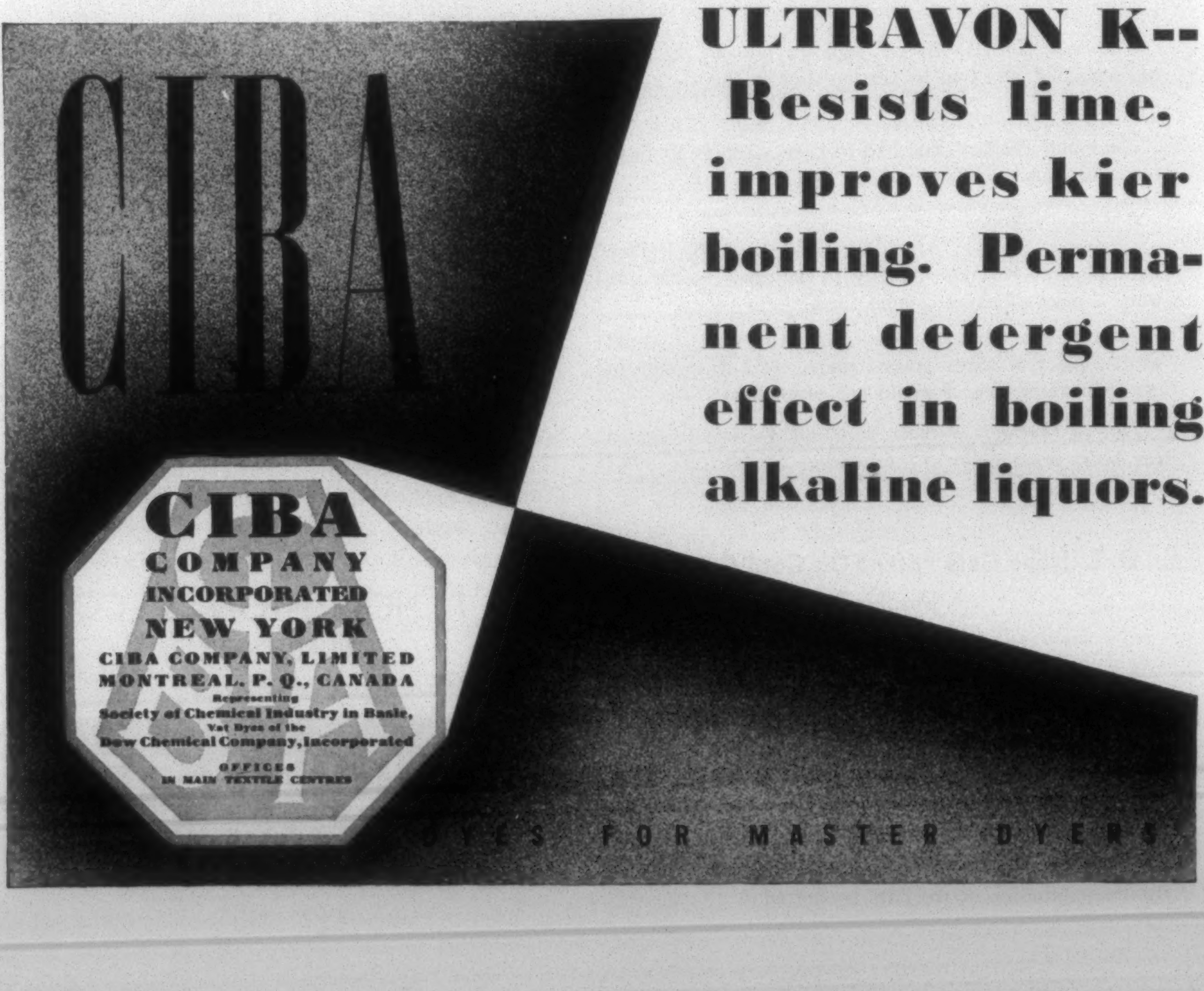
Mr. Royal: That ought to be a fairly simple test if all Western cotton does turn yellow.

Chairman Dilling: So many mills do not have ovens.

Chairman Dilling: Let me insist upon your doing this. Get up some questions and send them to this committee. Send in some new ones and some practical ones, and get them up ahead of time, so we can prepare to discuss them.

There is another thing I want to say. We are always glad to have you meet here, but if there is any other place more convenient for you we shall be glad to go there. We do not want to be selfish, but we are always happy to have you come here.

If there is nothing further, the meeting will now stand adjourned.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DYES FOR MASTER DYERS

New Industries and Old

(*Continued from Page 10*)

is too much of social theory and not enough of social practice in our current experiences.

I fear we have lost our way in a maze of political indecision. Because the wheels of industry are not turning as rapidly as we think they should we are inclined to tear the thing apart and see why it doesn't work, not stopping to think whether we will be able to put it back together again.

Another difficulty, it seems to me, is represented in the public's attitude toward all of our industrial problems. I wish we could think more in terms of industrial peace and harmony and co-operation, working shoulder to shoulder for the common good of all. I wish we could hear for the last time reference to the conflicting interests between capital and labor, the employer and the employee. I would like for us to approach this whole industrial problem from the standpoint of the consumer's interest, for the worker is a consumer. We are all consumers. Let us consider the value of the wheels of industry to the consumer. We need a new industrial viewpoint in South Carolina, and indeed in the United States.

I was very much discouraged with the passage of the Wagner Labor Disputes Act. The act is one-sided; protects only one interest in the controversy; is not even fair to all of the elements of labor itself; is undoubtedly used as a weapon of intimidation; and is doing more harm than good. But even if the act were well balanced, if it could be properly amended, as it is now predicted it will be in the next session of Congress, so as to make it a fair act, still there is a big question in my mind as to whether it is possible to legislate friendship and co-operation into the hearts of men. We tried that during prohibition days. Is that the proper method? Isn't it education we want? Isn't it the spirit of the golden rule? Isn't it a friendly consideration of our mutual problems, rather than legislation, that we need? The Wagner Labor Disputes Act is supposed to solve our industrial relations problem and reduce our industrial disputes. Actually its record condemns it to the gallows. In 1928, before the act was passed, there were 604 industrial strikes in the United States during that year. In 1937, after the Labor Disputes Act was in force, the number had increased to 4,740—an increase of 684%—undoubtedly influenced, if not directly caused, by the passage and enforcement of the very act intended to reduce strikes and bring peace.

From 1936 to 1937 the number of strikes more than doubled. The man-days idle from strikes rose from 13,900,000 in 1936 to 28,400,000 in 1937.

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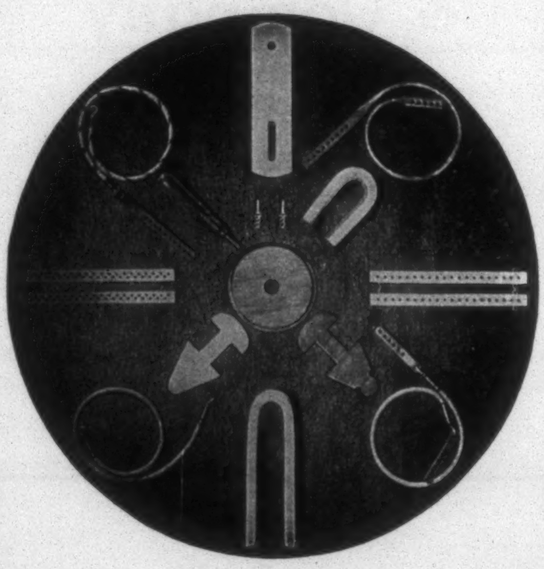

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Cotton Goods Markets

New York—Trading in cotton gray goods has been somewhat quieter for the past several weeks, but business is still fairly good in most lines. News of much better than expected prospective business for the automotive industry has been cheering to many of the South's mills that are on industrial fabrics. Apparently more than the normal seasonal activity for these fabrics is in store for the next few months.

A considerable volume of fancy goods have been contracted for in anticipation of needs for Spring. Converters have moved large quantities of printed dress goods, clothing fabrics and home furnishings, at better prices than have been in effect during most of the year.

For the past several weeks there has been noted increasing confidence among buyers throughout the market, and also noted has been a definite strengthening of price structure in practically all lines of merchandise. One of the leading denim manufacturers has just instituted a one-half cent increase in their asking price for 28 inch, 2.20 yard denim, bringing the price to 10½ cents. Recent price advances in other lines have been strongly maintained in the face of smaller business.

Listed among reasons for the slowing down of demand for cotton gray goods was the confusion existing in large sections of the trade over the two-price system proposed by Secretary of Agriculture Wallace to cut down the surplus of raw cotton. Traders maintain that proposals are too indefinite and that discussion only served to confuse the market.

Another factor believed to have attributed to the decline in sales is the weakness of retail sales of cotton apparel and accessories, particularly in the South. Abnormal temperatures have resulted in a disruption of the ordinary seasonal business at this time, and both retailers and wholesalers are feeling the effect of this.

Opinions from cotton houses are that there is likely to be a still further rise in raw cotton prices in the future. This is born out in some cases by advices from the mills that they are not able to get cotton at prices except more than loan value on the cotton. Selling agents pointed out that spot cotton a year ago was quoted at approximately 20 to 25 points lower than now, whereas 64 x 60s print cloths sold at 4⅞ cents at this time last year as against 4½ cents currently.

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Cotton Yarn Markets

Philadelphia.—It is still to early to accurately judge any possible effect that the new Wage and Hour Law will have on the cotton yarn market, but first indications are that the effect will be negligible, if noticed at all. This may be due in part to the fact that cotton yarns have been active during recent months, and have developed a strong market to regain some of the losses of the past winter and spring.

For a number of weeks the cotton yarn market has been surprisingly strong, and predictions have been heard that the market will continue to improve, or at least hold its own for months to come.

The above is particularly true of the combed and mercerized portion of the market, where record deliveries were made during the early part of the month. Record sales in this division of the market indicate that the reports of buying in anticipation of a price rise due to the effect of the Wage and Hour Law were incorrect, since there will be practically no increase in costs in this division of the industry unless the wage is set much higher than the minimum of 25 cents.

Most observers believe that the large buying of this year, though it resembles the speculative purchases of 1936 and early 1937, is more normal than it might look. Buyers found that they had been too conservative in their buying during the latter part of 1937 and the early part of this year, and are merely replacing their stock to more normal proportions than the sorely depleted condition of part of this year.

While buying has been much further ahead this Fall, it is felt that it was for actual needs in most cases. Retail stocks of all kinds have been low, and a great deal of stock will be necessary to replenish these stocks to normal proportions if the anticipated increase in retail sales which is indicated now materializes.

Carded yarns have not enjoyed the booming business that has been evident in the combed numbers, but have been improving steadily, and price advances are probably here to stay for some time at least. Some buyers are anxious to place orders for far future deliveries with a proviso attached to the contract guaranteeing the buyer against a price rise due to governmental legislation, but this type of contract has met with a cool reception among spinners, and it is unlikely that much business will be done on this basis.

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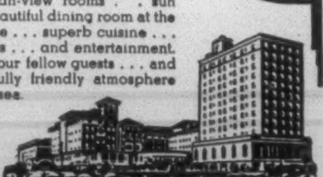

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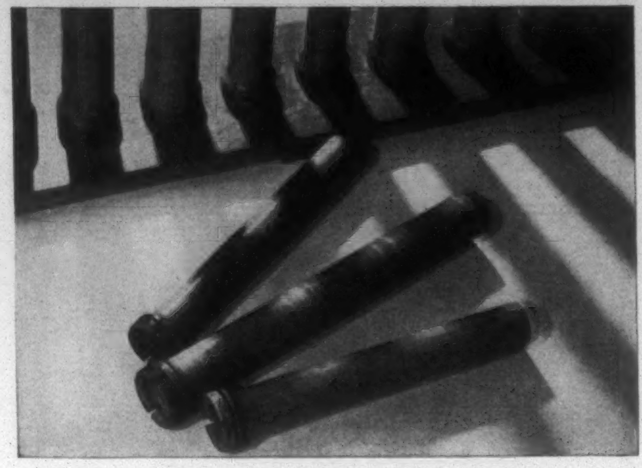

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Cloth Defects

(*Continued from Page 12*)

I. T. Smith: Yes, sir.

Mr. Henderson: That is so, but you still have to have a little play. If you notice, in the new model looms there is a shorter shuttle box. That is to keep it from binding.

W. W. Barton, Loom Fixer, Mill No. 6, Erwin Cotton Mills Co., Durham: I find that in checking a loom, in order to prevent kinky filling, you have to have the proper amount of check on the check strap. Whenever my loom moves, I want my harness to move and have them all pull the same. Then when the loom lets off it lets off regularly. I run my stroke 9¼ inches and let it check about 2½. Of course, the nature of men is not all alike, and the nature of all looms is not alike, and they do not run just alike. So we have to work our minds on that problem.

Mr. Harden: I should like to ask Mr. Henderson, without giving the name of any particular harness strap, to tell us his idea about the best harness strap to use for a very heavy loom; that is, where the harness is heavy. We use one type of harness strap that is made out of cloth, out of duck glued together, and it seems that after we run the harness strap for just a short time the glue in there begins to crack and the cloth separates, and pretty soon the strap is gone. Then we have tried several types of leather harness straps. The leather, of course, has a tendency to stretch, and we have to keep adjusting it. I should like to have Mr. Henderson's ideas along that line, for that is very important in loom upkeep.

Mr. Henderson: I do not know of anything better than leather, although there have been some reports recently of a woven strap. I do not know whether it has been run long enough to show what it is worth.

Mr. Harden: Is that a sort of vulcanized proposition? Is it a combination of rubber and cloth?

Mr. Henderson: It is a vulcanized combination, such as a hose would be.

Mr. Mulholland: Many of us use the Stafford thread cutter, which gets the thread and cuts it and holds it, making the bobbin change. I should like to know if it is practical for the slot in the shuttle to be made longer and still hold the life of the shuttle at approximately what it is at the present time.

Mr. Henderson: I think that is a good question. It is something that has come up several times in different mills—of course, this is Henderson talking now, and not the Draper Corporation. I think the slot should be longer. When the Stafford thread cutter was first put in, the knives went straight in and out. The slot was one inch then. Since then the angular cutting knives have been introduced, which go in at an angle, and I think the slot should be a quarter of an inch longer. The slot has already been lengthened in one or two mills. If you have that slot extended a quarter of an inch, you have a margin of safety on both sides.

Due to shortage of space, it is not possible to report the entire proceedings of this meeting in this issue. The remainder will appear in the issue of November 15.

Cloth Room, Weaving and Slashing

(*Continued from Page 15*)

like to have a show of hands on how they report seconds.

Chairman Gibson: How many report seconds up to 10 yards? (Two).

How many up to 30 yards? (One).

How many up to 40 yards or more? (About 25).

Now we will get down to the question on weaving.

Preventing Quills From Turning in Battery

The first question under that is as follows: *"(a) How do you prevent quills from turning in the battery, in order to eliminate as much as possible the breaking of filling on the change? (b) What is the best way to prevent quills from hanging in the quill apron of looms?"*

Member: I don't know exactly how to stop those quills from turning in the battery. Sometimes we stop it on one loom, and we do the same thing on the next loom and it will not stop it. Some of the things we do, well, one of the things we do, is to get the lost motion out of the spindles. That is one of the things we do.

In preventing quills from hanging in the quill apron of looms, we think we do more good with that by having these parts of the right thickness, just thick enough to have the picker stick not bind as it works. Having this of the right thickness is about the best thing I know of to keep your bobbins in shape and out of the apron.

Mr. Hodge: I cannot add much to what the gentleman has just said. About the only thing we do is try to get the lost motion out and tighten the loom up.

Mr. Willingham: We make an effort to have the rings of the quill come down in the rings of the bobbin stop and make it match. If the rings won't match your bobbin stop, sometimes we file one, and raise it up in order to make it match. Sometimes we put in a new one, that won't match, and we have to file it so that it will. I think a lot of people imagine they have a lot of trouble from various causes, but I don't think we have as much breaking of filling by bobbins turning in the battery as some might think we would have.

Chairman Gibson: Do you think it comes too far or not far enough?

Mr. Willingham: Too deep. We have got a little trick, that we had, using a little end clip, and let the filling come down in it, so that, if your bobbin turns, it won't break. It can turn all it pleases.

Mr. Thomas (Opelika, Ala.): We found a great deal of trouble as to breaking was due to the bobbins or quills getting worn on the end. That wearing has been accentuated by reason of putting it through the conditioning machines. Our quills in our mills were about two years old, and we found over that time that we were getting an increasingly greater number of breaks. In looking into it we found the uneveness of the wear of these quills was making it so that you couldn't adjust your battery so as to take it with different lengths. That led us to putting a brass tip on our quills so as to make them more

(*Continued on Page 54*)

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A. A. T. C. 18th Annual Meeting in Atlanta, Dec. 2nd and 3rd

The 18th Annual Meeting and Convention of the American Association of Textile Chemists and Colorists will be held December 2nd and 3rd at the Atlanta Biltmore Hotel, Atlanta, Ga., under the auspices of the Southeastern Section. Between 700 and 800 delegates and visitors are expected to attend.

The membership of this association, which numbers approximately 2,300, represents almost the entire color producing and textile color consuming industries in this country, and the organization ranks high among the technical associations of America. It was formed to promote knowledge of the application of dyes and chemicals in the textile industry, to encourage research work in this respect and to establish channels for the interchange of knowledge among its members.

General Committee that will handle the meeting for the Southeastern Section

Front Row, Left to Right—W. B. Griffin, Kali Mfg. Co.; Geo. H. Small, Nat. Oil Products Co.; Jno. C. Robertson, E. I. DuPont de Nemours & Co.; Chas. C. Jones, Ga. School of Technology; M. A. Land, Westinghouse Elec. & Mfg. Co.; Jas. I. White, National Aniline & Chem. Co.; Robt. W. Philip, Editor "Cotton;" Wm. H. Randolph, Jr., A. E. Staley Mfg. Co.

Standing, Left to Right—Sam R. Clement, Monsanto Chem. Co.; Earl Arthurs, Solvay Sales Corp.; H. Gillespie Smith, Calco Chem. Co.; A. R. Macormac, Ala. Polytechnic Institute; A. Kempton Haynes, Rohm & Haas; Jno. F. Nation, J. M. Tull Co.; Earle Mauldin, Southern Editor, "Textile World;" W. F. Crayton, E. I. DuPont de Nemours & Co.; John Turner, Chas. Bond Co.; R. A. Field, Jr., Newnan Cotton Mill; Allen Jones, Muscogee Mfg. Co.; R. C. Cochrane, E. I. DuPont de Nemours & Co.; L. A. Dillon, A. E. Staley Mfg. Co.; H. A. Blum, Paper Makers Chem. Co.; R. E. Howell, Frank G. North, Inc.

The program for the convention will be announced in full at a later date, is tentatively as follows:

Friday, December 2nd

10 A. M.—Opening of registration, and meeting of Council and Research Committee.

12:30 P. M.—Luncheon in Georgian Ballroom for all delegates.

2:30 P. M.—First technical session.

6:30 P. M.—Informal supper for all delegates and their ladies, with Southern entertainment and dancing.

Saturday, December 3rd

9:30 A. M.—Second technical session and business meeting.

2 P. M.—Sight-seeing trips to Stone Mountain, Cyclorama, and other points of interest, and golf for the golfers.

6:15 P. M.—Reception at Atlanta Athletic Club.

7 P. M.—Annual Banquet at Atlanta Athletic Club.

An interesting program of entertainment has been arranged which will be of a decidedly Southern flavor. Honorable E. D. Rivers, Governor of Georgia, and Hugh M. Comer, vice-president of Avondale Mills, Sylacauga, Ala., will address the convention at the Friday luncheon and a prominent national figure will deliver the feature address at the Saturday banquet. A feature, of interest to all, will be the exhibit of textile products manufactured by Southern mills which will be on display at the Biltmore Hotel during the convention. Delegates and visitors are urged to bring their ladies for the ladies' committee has arranged an interesting program in their behalf.

Officers of the association are: President, Alban Eavenson of Eavenson and Levering Company; vice-presidents, Duncan Ferguson and Arthur R. Thompson, Jr.; treasurer, William R. Moorhouse; Secretary, Harold C. Chapin. Robert W. Philip, editor of *Cotton*, Atlanta, Ga., is Chairman of the Southeastern Section, hosts for the convention.

Cotton Classers Licenses Revoked

Faulty classing of cotton for government loans has resulted in the revocation of licenses of nearly 100 classers in the central belt, and some 30 or 40 others are under investigation, according to E. G. Parker, chairman of the board of supervising cotton examiners at Memphis.

The territory which includes Arkansas, Tennessee, Mississippi and Missouri has about 300 licensed classers, the great majority of whom work on a per bale basis.

Most of the classers had their licenses revoked because of overclassing, Parker said, although saveral have lost them because of under classing. It is said that several thousand bales have been put into the government loan in this territory, and that the government stands to lose from $2 to $5 per bale on the cotton due to over-classing.

Classing cotton in the central belt is a more exacting proposition than in other sections of he growing regions, due to the wide variety of staples, and the fact that this territory produces a large part of the long staple cotton, or that of 1⅛ inch in staple or over.

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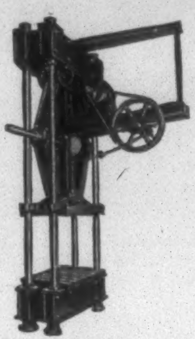

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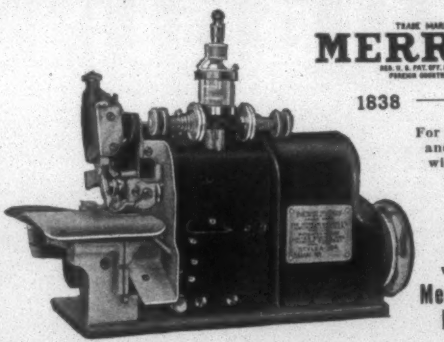

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Cloth Room, Weaving and Slashing

(*Continued from Page 51*)

uniform in length, and enable us to adjust the battery so that we would not get this result. After we had done this on a large number of them, that didn't eliminate it to a great extent, and then we conceived a little device which seemed to be a positive solution, and enabled you to know that it was a mechanical trouble on the loom and would eliminate any machinery trouble. Ordinarily a loom fixer can fix it. I am going to ask Mr. Matthews to tell you about that.

Mr. Matthews: We have down there a plain clip, and also have a quill with a square brass top on it. In that way we have a positive way of eliminating beyond the shadow of a doubt where the trouble is. We can immediately see that it is some mechanical defect in the loom.

Now, I have here a record of a test for 14 weeks. Seven weeks of this was on our 52 looms running with this square-top quill before and after. Seven weeks before we installed this square-top quill, we had a breakage of 441. That's in four hours on the 52 looms. The test was made every Thursday from 2 until 6 o'clock. That gave us a breakage of .30. Our production on these looms before the square-top quill was put in was 89.7. That was the production. After putting in the square-top quills we had a test of seven weeks, same test, and we had 210 stops or a stop per loom of .14, and our production was 91.9.

All my life as a loom fixer I have been worried with this thing, and everybody that ever went into a weave room and fixed looms had that trouble. Back in the old days, we let the other man take care of all of that. It is a positive cure for that thing. We had these percentages on a test every Thursday from 2 o'clock until 6 o'clock for 14 weeks.

Question: Is that total stops or just filling stops?

Answer: Just the filling.

Question: What numbers of filling were used?

Answer: We used 12 and 14.

Question: You have not tried it on 30?

Answer: No, but this has been in operation in the other mill, and they have reported from that mill that it has cured their trouble of breaking; that the work is better on fine filling than on coarse filling, or at least equally as good.

Question: Does that square end make any difference in the tension of the filling as it runs off?

Answer: It makes no difference whatever.

Due to shortage of space, it is not possible to report the entire proceedings of this meeting in this issue. The remainder will appear in the issue of November 15.

September Cotton Consumption Drops To 544,037 Bales

Washington.—Cotton consumption during September totaled 544,037 bales compared with 601,305 bales in the same month last year, according to preliminary statistics made public by the Census Bureau, Department of Commerce. Consumption for the two months' period ending September 30 this year totaled 1,095,443 bales compared with 1,204,922 bales in the same period a year ago.

Cotton on hand in consuming establishments on September 30 totaled 1,107,388 bales compared with 986,249 bales last year, while in public storage and at compresses for the two periods there was a total of 13,013,410 bales and 6,880,029 bales respectively.

Of total consumption this year, 456,669 bales were used in the cotton-growing States, 61,673 bales in New England States, and 15,695 bales in all other States. Linters consumed during September totaled 70,991 bales compared with 74,167 bales in the same month last year.

Exports in September totaled 389,000 bales valued at $20,252,000 compared with 201,000 bales valued at $10,455,000 in August and 617,000 bales valued at $38,633,000 in September, 1937, according to an analysis of the export statistics by the textile division, Bureaus of Foreign and Domestic Commerce.

Total exports for the two months, August and September, aggregated 590,000 bales valued at $30,707,000 compared with 838,000 bales valued at $53,762,000 for the corresponding two months of 1937, a decline of 248,000 bales or 29.6 per cent in quantity and $23,055,000 or 42.9 per cent in value.

As compared with the figures for the two months of 1937, smaller shipments were recorded for all the principal European destinations, while larger shipments were shown for Japan and Canada.

Cotton Classing Manual

A Cotton Classing Manual has been prepared by H. H. Willis, Gaston Gage, and Vernette B. Moore in cooperation with the Textile Foundation, Washington, D. C. This manual compiles the information required by a cotton classer to supplement his skills in stapling and cotton grading, including cotton classing rules and practices and a discussion of cotton classing as an occupation, the types of positions available and the requirements for securing and holding these positions.

Cotton valuation in terms of price variations for grade and staple, cotton buying and selling in the spot markets and future markets, and the principles of hedging are representative informational chapters.

Various study exercises and many blank forms are provided for use in connection with the actual practice in stapling and grading cotton. The compilation of rules and regulations of the trade and the convenient instructional materials included makes this a particularly usable manual for teaching cotton classing.

This manual consists of 116 pages and 25 illustrations. The price is $1.25. Copies may be secured from H. H. Willis, Clemson, S. C.

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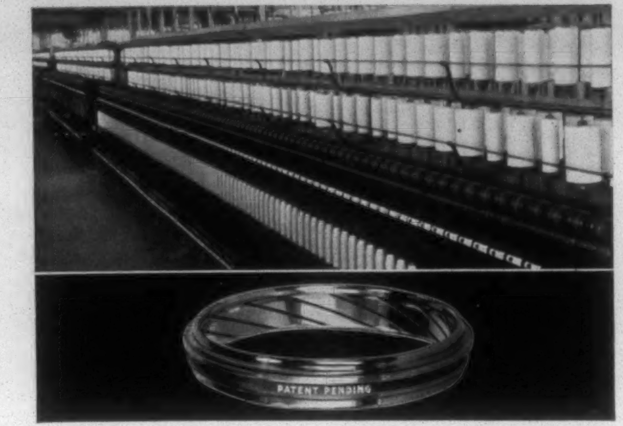
Additional Mills Accept Cotton Bagging

The Textile Bulletin of October 1st carried a list of names of mills that have agreed to accept cotton on a net weight basis when wrapped in cotton bagging instead of the conventional jute bagging. Since that time, a communication from S. Odenheimer, president of the Lane Cotton Mills, New Orleans, La., where the cotton bagging is being manufactured, advises us of additional mills which have agreed to accept cotton on a net weight basis. The list follows:

Mill	Location	No. of Spinning Spindles
Alabama		
Bama Cotton Mills,	Enterprise	9,576
Geneva Cotton Mills,	Geneva	11,840
Bradford Mills,	Prattville	10,920
Connecticut		
Ponemah Mills,	Taftville	79,104
Georgia		
J. P. King Mfg. Co.,	Augusta	60,384
Mary-Leila Cotton Mills,	Greensboro	19,344
Sibley-Enterprise Mfg. Co.,	Augusta	75,072
Fitzgerald Cotton Mills,	Fitzgerald	11,300
Martha Mills (B. F. Goodrich),	Thomaston	135,000
U. S. Rubber Products, Inc.,	Hogansville	37,764
Rushton Cotton Mills,	Griffin	15,168
Crown Cotton Mills,	Dalton	60,700
Macon Textiles, Inc.,	Macon	6,912
Palmetto Cotton Mills,	Palmetto	6,880
Tifton Cotton Mills,	Tifton	10,096
Dixie Cotton Mills,	LaGrange	22,388
Ancher Duck Mills,	Rome	29,000
Fulton Bag & Cotton Mills,	Atlanta	100,000
Maine		
Continental Mills,	Lewiston	105,848
Massachusetts		
Nashawena Mills,	New Bedford	72,000
Whitin Bros., Inc.,	Linwood	22,860
Bourne Mills,	Fall River	84,268
Warwick Mills,	Boston	32,256
North Carolina		
Marion Mfg. Co.,	Marion	37,928
Gastonia Combed Yarn Corp.,	Gastonia	37,088
Roanoke Mills Co.,	Roanoke Rapids	54,336
Pilot Mills,	Raleigh	13,364
Salisbury Cotton Mills,	Salisbury	32,192
Efird Mfg. Co.,	Albemarle	54,360
Carolina Textile Corp.,	Charlotte	40,000
Peck Mfg. Co.,	Warrenton	10,000
Firestone Cotton Mills,	Gastonia	145,348
Rhyne-Houser Mfg. Co.,	Cherryville	18,000
Rosemary Mfg. Co.,	Roanoke Rapids	47,552
Roanoke Mills Co.,	Roanoke Rapids	29,808
Patterson Mfg. Co.,	Roanoke Rapids	29,520
Oklahoma		
Commander Mills, Inc.,	Sand Springs	25,200
Rhode Island		
Warwick Mills,	West Warwick	56,880
South Carolina		
F. W. Poe Mfg. Co.,	Greenville	70,352
Worth Mills,	Ft. Worth	54,444
Tennessee		
O-Cedar Corp.,	Covington	2,688
Springfield Woolen Mills Co.,	Springfield	5,550
Texas		
Lone Star Cotton Mills,	El Paso	9,320
Wisconsin		
Janesville Cotton Mills,	Janesville	Not given
Total		1,746,274
Original list		7,605,819
Additional list		1,746,274
Total to date		9,352,093



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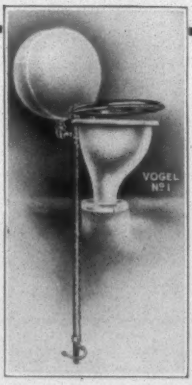

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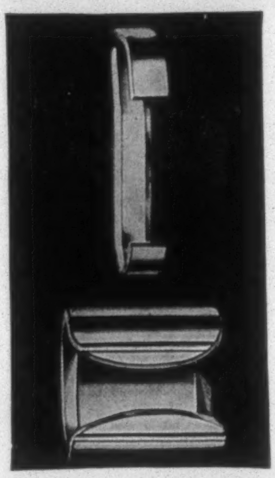

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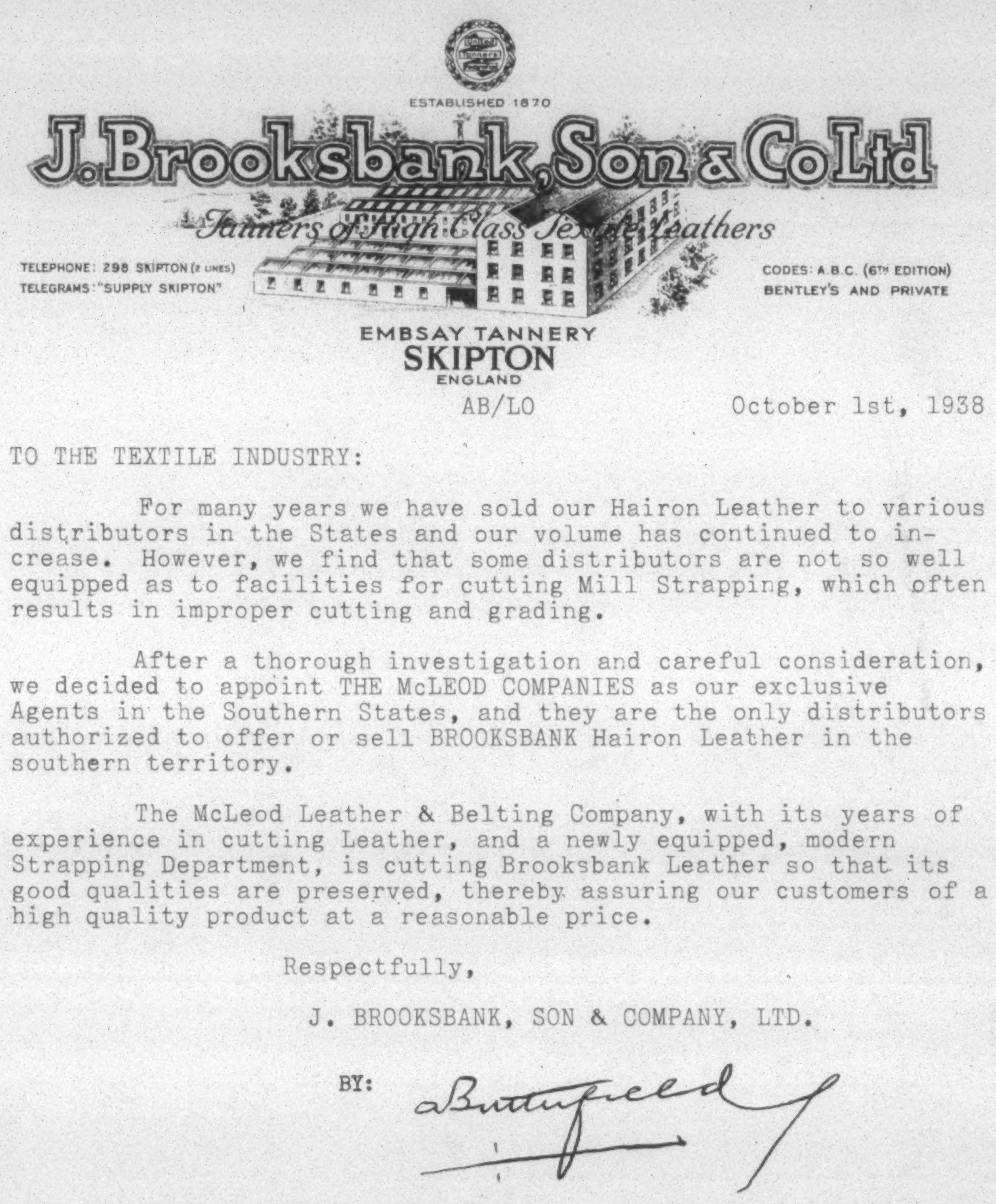

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